JUGONNATH SUNKERSETT
PRESENTATION.

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ENGLISH BOTANY;

OR,

COLOURED FIGURES

OF

BRITISH PLANTS,

WITH THEIR

ESSENTIAL CHARACTERS, SYNONYMS, AND PLACES OF GROWTH.

TO WHICH WILL BE ADDED,

OCCASIONAL REMARKS.

BY

JAMES EDWARD SMITH, M.D. F.R.S.

MEMBER OF THE IMP. ACAD. NATURÆ CURIOSORUM, THE ACADEMIES OF STOCKHOLM, UPSAL, TURIN, LISBON, LUND, BERLIN, PHILADELPHIA, AND THE NAT. HIST. SOCIETY OF PARIS;

PRESIDENT OF THE LINNÆAN SOCIETY.

THE FIGURES BY

JAMES SOWERBY, F.L.S.

55364

——"VIRESQUE ACQUIRIT EUNDO."——*Virg.*

XXII

ROYAL ASIATIC SOCIETY LIBRARY OF THE BOMBAY BRANCH OF THE

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ANTHERICUM serotinum,

Mountain Spiderwort.

HEXANDRIA Monogynia.

GEN. CHAR. *Cor.* of 6 spreading petals, permanent. *Filaments* thread-shaped. *Capsule* superior. *Seeds* angular. *Cal.* none.

SPEC. CHAR. Leaves semicylindrical; those on the stem dilated at their base. Stem mostly single-flowered.

SYN. Anthericum serotinum. *Linn. Sp. Pl.* 444. *Sm. Fl. Brit.* 367. *Huds.* 144. *With.* 339. *Hull.* 73. Bulbosa alpina juncifolia, pericarpio unio erecto in summo cauliculo dodrantali. *Raii Syn.* 374. *t.* 17. *f.* 1.

THE *Anthericum serotinum*, being found only on the most inaccessible alpine rocks of North Wales, has been seen by very few British botanists. Our specimen was communicated in a fresh state by J. W. Griffith, Esq. of Garn, a gentleman to whom we are indebted for many valuable particulars concerning the botany of his own sequestered and romantic country, and who finds this plant in plenty on the rocks above the alpine valley of Cwm Idwel, Carnarvonshire*, flowering in June or early in July, so that the name *serotinum* seems not very happily applied.

The root is perenial, consisting of a slender oblong curved bulb, with many fibres at its base. Stem from 3 to 6 inches high, solitary, erect, round, smooth, leafy, generally simple and single-flowered, as Linnæus defines it; but Mr. Griffith has not unfrequently observed it branched and bearing many flowers. Radical leaves slender, semicylindrical or angular, surmounting the stem; the rest alternate, short, dilated at their base. Flower terminal, erect, compared by Dr. Richardson to that of Wood Sorral (*t.* 762), which it at first sight somewhat resembles, the petals being white, externally veined with purplish red. Stamina thread-shaped, smooth. Germen superior, becoming at length an obtuse membranous three-lobed capsule, crowned with the style and invested with the withered petals, and divided into 3 cells, containing numerous curved triangular striated seeds.

* See a Tour round North Wales, by the Rev. W. Bingley, published 1800, vol. 1. 209.

Oct. 1 1806. Published by Jas. Sowerby. London.

SAXIFRAGA cæpitosa.

Tufted Alpine Saxifrage.

DECANDRIA Digynia.

GEN. CHAR. *Cal.* 5-*cleft.* *Petals* 5 *Caps.* with 2 beaks, 1 cell, and many *seeds.*

SPEC. CHAR. Radical leaves clustered, fleshy, linear, undivided or three-cleft; ribbed beneath. Stem almost naked, bearing one or two flowers.

SYN. Saxifraga cæspitosa. *Linn. Sp. Pl.* 578. *Sm. Fl. Brit.* 455.

FOR this plant also we are obliged to Mr. Griffith, who discovered it on the rocks about Cwm Idwel growing very sparingly, flowering in June. It affords us a fortunate opportunity of exhibiting, and fixing as a British species, the certain plant of Linnæus; for, if Dr. Withering be right, the *S. cæspitosa* of Hudson is no other than Jacquin's *moschata*, to which perhaps all the synonyms, applied in *Sp. Pl.* to the true *cæspitosa*, really belong. Even the figure of Scopoli, the only one I ventured to quote in the *Fl. Britannica*, I am now satisfied is rightly referred by Jacquin to his *muscoides*.

The true *S cæspitosa*, of which the Linnæan herbarium contains abundant specimens, has a perennial root, crowned with dense tufts of fleshy linear blunt leaves, each with a triple nerve beneath; of which the lowermost are undivided, the rest three-cleft, sometimes five-cleft. Stem about two inches high, erect, bearing a few linear (rarely three-cleft) bracteæ, and terminated by one or two large cream-coloured flowers. Calyx hemispherical, clothed like the herbage with prominent, glandular, not woolly, hairs, but its teeth are smoother and blunt. Petals obovate, entire, blunt, with a triple nerve. Germen almost entirely inferior.

It is much to be wished that some accurate botanist would ascertain whether it be this species, the *moschata*, or the *muscoides*, that grows about Ambleside.

EPILOBIUM parviflorum.

Small-flowered hoary Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Caps.* oblong, inferi r. *Seeds* feathered.

SPEC. CHAR. Leaves sessile, lanceolate, downy. Stem nearly simple, woolly. Root fibrous.

SYN. Epilobium parviflorum. *With.* 366. *Sm. Fl. Brit.* 410. *Hull.* 82.

E. villosum. *Curt. Lond. fasc.* 2. *t.* 22 *Relh.* 152 *Sibth.* 121. *Abbot.* 84.

E. hirsutum. *Huds.* 161. *Linn. Sp. Pl.* 494, β.

Lysimachia siliquosa hirsuta parvo flore. *Raii Syn.* 311.

FREQUENT in watery places, and about the banks of rivers, flowering in July.

Mr. Curtis has well distinguished this from the common great-flowered Willow-herb, called (on account of its smell) Codlings and Cream; but he ought to have retained the name of *parviflorum*, previously given by Schreber and Withering. Mr. Hudson has committed a different fault in taking the plant before us for the real *E. hirsutum* of Linnæus; whereas it is his variety β.

The root is perennial, fibrous and branched. Stem scarcely 2 feet high, simple, or but little branched, round, leafy, clothed with soft woolly hairs. Leaves clothed with similar hairs, opposite, sessile, minutely toothed; the upper ones alternate. Flowers in a terminal leafy corymbus, at length becoming a spike Petals obcordate, rose-coloured or purplish. Stigma four-cleft, in which particular this differs from the only two species of *Epilobium* already figured in our work.

The great *E. hirsutum* above alluded to is easily known by its creeping root, tall branching stem, broad leaves, and much larger flowers.

ERYSIMUM Alliaria.

Garlick Hedge-mustard.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* straight, columnar, exactly square. *Cal.* closed. *Stigma* blunt.

SPEC. CHAR. Leaves heart-shaped.

SYN. Erysimum Alliaria. *Linn. Sp. Pl.* 922. *Sm. Fl. Brit.* 708. *Huds.* 286. *With.* 584. *Hull.* 146. *Relh.* 251. *Sibth.* 201. *Abbott.* 144. *Curt. Lond. fasc.* 2. *t* 48. *Woodv. Suppl. t.* 245.

Hesperis Allium redolens. *Raii Syn.* 293.

VERY common under hedges and in other shady places, where it flowers in May. As the summer advances the leaves turn yellow, and the plant soon dies, sowing its seeds in abundance. The young plants which spring up from them in autumn generally flower the next season, so that the root is more properly annual than biennial.

The stem is upright, about a foot or more in height, leafy, a little branched in the upper part. Leaves alternate, on footstalks, heart-shaped, broad, toothed, veiny, of a deep shining green, and very smooth. Flowers small, with white entire petals, and the calyx also is whitish at the base. A notched gland embraces the base of each of the shorter stamina, and a smaller entire one stands without side of the longer stamina. Pods erect, long, quadrangular, which last is the most certain character of *Erysimum*, and obliges us to overlook the calyx, whose leaves do not stand so close together as the generic description requires.

When bruised this whole herb has a strong smell, which seems as it were the quintessence of the peculiar acrid flavour common to the cruciform plants, heightened into that of garlic. Hence it has acquired the name of *Sauce alone*, and Ray tells us the country people eat it with bread and butter. It is certainly the cheapest article of the three.

POLYPODIUM Lonchitis.

Rough Alpine Polypody.

CRYPTOGAMIA Filices.

GEN. CHAR. *Fructifications* scattered, in roundish dots, not marginal. *Involucrum* umbilicated, bursting almost all round.

SPEC. CHAR. Frond simply pinnate; leaflets crescent-shaped, bent downwards, bristly-serrated. Stalks scaly.

SYN. Polypodium Lonchitis. *Linn. Sp. Pl.* 1548. *Huds.* 455. *With.* 773. *Hull.* 237. *Lightf.* 668.
Lonchitis aspera major. *Raii Syn.* 118.

A NATIVE of high rocky mountains, sent us from Durham by the Rev. Mr. Harriman. It has also been found in Wales and Scotland, but is confined to alpine situations.

The fronds grow in tufts, upright, 8 or 10 inches high, of a narrow lanceolate figure, rigid and harsh, composed of numerous alternate sessile simple *pinnæ* or leaflets, which are bent a little downwards, and are of a lanceolate somewhat crescent-shaped figure, acute, fringed with bristly serratures, and having a projecting angle at their base on the upper side, while the under is sloped or cut away. About half the leaflets, and those the uppermost, are thickly set with round spots of fructification in a single line on each side of the rib, each spot covered with a round truly umbilicated involucrum. One or two smaller dots sometimes stand on the projecting angle of the leaflet.

This has often been supposed a mere variety of *P. aculeatum*, which, when transplanted from its native woods into an open garden, often dwindles away to the size of *P. Lonchitis*, see *Pluk. Phyt. t.* 180. *f.* 3, as Mr. W. Brunton of Rippon has proved by experiment. The *Lonchitis* however has the leaflets much less inclined to be lobed, and never auricle; its spots of fructification are thrice as large as in the other, and the plants are manifestly different.

JUNGERMANNIA platyphylla.

Wall Jungermannia.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male flowers sessile.
Female on a stalk rising from a sheath. *Caps.* with 4 valves. *Seeds* attached to elastic filaments.

SPEC. CHAR. Fronds procumbent, much branched, spreading, triply auricled beneath. Leaves heart-shaped, obtuse. Sheaths toothed.

SYN. Jungermannia platyphylla. *Linn. Sp. Pl.* 1600. *Huds.* 515. *With.* 879. *Hull.* 280. *Relh.* 419. *Sibth.* 312. *Abbot.* 254.

Lichenastrum imbricatum majus. *Raii Syn.* 111.
L. Arboris vitæ facie, foliis minus rotundis. *Dill. Musc.* 501. *t.* 72. *f.* 32.

FREQUENT in woods, as well as on old walls that are copiously covered with earth. The fructification, produced in March or April, is not of very frequent occurrence. The ripe capsules grow on short stalks from a lobed and irregularly toothed sheath, placed, for the most part laterally, on the younger branches. They split into four broad brown valves. The fronds lie one over another forming broad loose patches of a full grass green. They are composed of numerous subdivided spreading branches, thickly clothed with two rows of imbricated heart-shaped blunt convex entire leaves, connected beneath by a triple row of entire ovate auricles. This is readily known from all our other species by its general form, size, and colour. That to which it has most affinity is the *J. complanata.*

Lonicera Caprifolium.

Nov.ᵗ 1 1800. Published by J.ᵗ Sowerby. London.

LONICERA Caprifolium.

Pale perfoliate Honeysuckle.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* of 1 petal, irregular. *Berry* inferior, of 2 cells, with several *seeds.*

SPEC. CHAR. Flowers ringent, whorled, terminal. Leaves deciduous; the uppermost united and perfoliate.

SYN. Lonicera Caprifolium. *Linn. Sp. Pl.* 246. *Sm. Fl. Brit.* 260.

Periclymenum perfoliatum. *Ger. em.* 891.

THE first information of this as a native of Britain was communicated to me by the Rev. T. Butt of Arcley, Staffordshire, who found it plentifully in a wood near Elsfield Oxfordshire. I hesitated to admit a plant so common in gardens; but Mr. Relhan having discovered it at Hinton, Cambridgeshire, in his opinion certainly wild, I could no longer refuse it a place in the *Flora Britannica.* It has probably been overlooked as one of the many varieties of the Common Honey-suckle, from all which however it is perfectly distinct, and easily to be known by the upper leaves being perfoliate, not to mention many other marks. It flowers in May or June.

The woody twisting stem climbs upon bushes and trees, and is clothed with opposite entire smooth leaves, glaucous beneath, all which are in some degree connate by their footstalks, but one or two of the uppermost pairs are perfectly united and perfoliate. The flowers grow in whorls, sessile in the bosoms of the upper leaves, and are fragrant, yellowish, with a blush-coloured tube. Their structure is ringent, one segment of the border being much deeper than the rest and greatly divaricated. Berries elliptical, orange-red, crowned with the almost entire calyx.

The fruit only in our figure is taken from a garden specimen, the rest from a wild one gathered at Hinton by J. Holme Esq. of Peter-house, Cambridge.

Lonicera
Periclymenum

LONICERA Periclymenum.

Common Honeysuckle, or Woodbine.

PENTANDRIA Monogynia.

GEN. CHAR. *Cor.* of 1 petal, irregular. *Berry* inferior, of 2 cells, with several *seeds.*

SPEC. CHAR. Heads of flowers ovate, imbricated, terminal. Leaves all separate, deciduous. Flowers ringent.

SYN. Lonicera Periclymenum. *Linn. Sp. Pl.* 247. *Sm. Fl. Brit.* 260. *Huds.* 94. *With.* 246. *Hull.* 53. *Relh.* 93. *Sibth.* 81. *Abbot.* 49. *Curt. Lond. fasc.* 1. *t.* 15.

Caprifolium Germanicum. *Raii Syn.* 458.

THIS elegant plant which decorates our hedges so abundantly, and whose flowers perfume the air so delightfully in an evening or after rain, differs essentially from that in the last plate in having all the leaves distinct, not perfoliate, the flowers collected into an ovate head, not axillary, and the fruit crowned with a five-toothed calyx, instead of the nearly entire rim observable in the other. The berries are also rounder, of a darker red, and often roughish. The twining stem climbs to a considerable height upon trees and bushes. The leaves are entire, for the most part sessile, generally of a full green and smooth, paler beneath, often hairy, and in that case they are all over of a lighter hue. There sometimes occurs a remarkable variety with sinuated, generally variegated, leaves, called the Oak-leaved Honeysuckle.

The Common Honeysuckle is liable to many variations in the different degrees of smoothness or hairiness of its leaves, fruit and younger branches, as well as in the colour of its flowers, which are either externally of a deep red, or altogether of a pale yellowish hue; by the sea side they often quite green. We have not however been able to find any specific distinction between these varieties. They all flower most plentifully in June and July, but occasionally throughout the autumn also.

Nov.r 1. 1800 Published by B. Sowerby, London.

JUNCUS uliginosus.

Little bulbous Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Leaves setaceous, obscurely jointed within. Flowers about three together in a kind of proliferous cluster. Stem bulbous, taking root at its joints.

SYN. Juncus uliginosus. *Sibth.* 115. *Sm. Fl. Brit.* 380. *With.* 348. *Hull.* 76.
J. viviparus. *Relh.* 143. *Abbot.* 79.
J. articulatus. γ. *Huds.* 150.
Gramen junceum capsulis triangulis minimum. *Raii Syn.* 434.

MOIST sandy or turfy heaths often abound with this small species of rush, which has by some botanists been referred to the *Juncus articulatus,* because its leaves are slightly jointed, or at least separated internally into cells; and by others to *J. bulbosus,* on account of the bulbous base of its stem. In the last respect it indeed much more truly answers to the name *bulbosus* than the plant to which Linnæus applied that denomination.

J. uliginosus is unquestionably a very distinct species. The root is perennial and fibrous. Stems bulbous at their base and clothed with the broad red sheaths of the radical leaves; in the upper part they are slender, leafy, branched in a proliferous manner, at first almost erect, but soon lying down, and taking root at their joints. Leaves all slender, tapering, acute, not perceptibly jointed on the outside, smooth. Flowers about three together, lateral or terminal. Bracteæ small, acute. Calyx-leaves acute, three-nerved, generally brownish. Capsule blunt, with three very sharp angles. It blossoms in June or July, and in wet seasons is often viviparous; see *Fl. Brit.* β.

Juncus bufonius.

JUNCUS bufonius.

Toad Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Leaves linear, channelled. Stem forked, racemose. Flowers solitary.

SYN. Juncus bufonius. *Linn. Sp. Pl.* 466. *Sm. Fl. Brit.* 381. *Huds.* 150. *With.* 348. *Hull.* 76. *Relh.* 144. *Sibth.* 115. *Abbot.* 80. *Dicks. H. Sicc. fasc.* 4. 6.

J. palustris humilior erectus. *Raii Syn.* 434.

VERY frequent in all kinds of marshy places, particularly on watery sandy heaths, where it flowers copiously throughout July and August.

Root fibrous, annual. Stems numerous, upright, forming a dense tuft, round, leafy, forked or somewhat cymose, the upper part of the branches terminating in simple rows of sessile upright flowers. The whole herb is smooth, and of a paler hue than the rest of its species. Leaves linear, acute, channelled above, dilated at their base. Calyx-leaves lanceolate, tapering to a very slender point, green, with a membranous margin. Bracteæ pellucid. Capsule slender, blunt, shorter than the calyx, three-celled. Seeds very numerous.

We know not any good reason for the specific name of this *Juncus*. It is generally found in moister situations than toads for the most part inhabit.

Stellaria graminea.

STELLARIA graminea.

Lesser Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, deeply cloven. *Caps.* superior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Leaves linear-lanceolate, entire. Panicle terminal, spreading. Calyx three-nerved, about equal to the petals.

SYN. Stellaria graminea. *Linn. Sp. Pl.* 604. *Sm. Fl. Brit.* 475. *Huds.* 190. *With.* 419. *Hull.* 97. *Relh.* 170. *Sibth.* 140. *Abbot.* 96. Caryophyllus holosteus arvensis glaber, flore minore. *Raii Syn.* 346.

THE white starry blossoms of this delicate plant prettily bespangle furze-bushes, heath, and low broom, on a gravelly or sandy soil; and its herbage being concealed by the bushes or grass, and the stalks of the panicle very slender, the flowers seem suspended in the air. They are principally observable in June and July.

The root is perennial and creeping. The whole habit of the plant much like that of *S. holostea*, figured in our 8th *vol. t.* 511, but its size is smaller, and the colour a grass green, not glaucous. The stem and flower-stalks are perfectly smooth. Leaves entire, and scarcely even rough at the margin. Panicle divaricated. Calyx-leaves pale, with three acute green ribs, which, as Dr. Stokes observes, are not to be found in *S. holostea* Petals about as long as the calyx or longer, very deeply divided. Antheræ of a pale reddish hue, pointed out by Ray as a rare circumstance, and characteristic of this species. It is however also observable in *S. glauca*, *Fl. Brit.* which Ray originally considered as a variety of this, though he afterwards separated them.

Melampyrum sylvaticum.

Nov.r 1 1800. Published by Jas Sowerby. London.

MELAMPYRUM sylvaticum.

Wood Cow-wheat.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* tubular, 4-cleft. Upper lip of the *corolla* compressed, turned back at the margin. *Caps.* 2 celled, oblique, bursting at one edge. *Seeds* 2, gibbous.

SPEC. CHAR. Flowers lateral, leaning one way. Leaves in distant pairs. Corolla open, with its lip bent downwards.

SYN. Melampyrum sylvaticum. *Linn. Sp. Pl.* 843. *Sm. Fl. Brit.* 653. *Light.* 325. *With.* 546. *Hull.* 137. *Fl. Dan. t.* 145.

IT appears that this *Melampyrum* was not known to Mr. Hudson. What he called *M. sylvaticum* is the common *pratense*, see our *t.* 113; and his *pratense*, adopted from Ray, is undoubtedly, as Dr. Withering first suggested, only a variety of the same. Mr. Lightfoot's herbarium proves the Scottish *sylvaticum* to be right, and our wild specimens sent from the county of Durham by the Rev. Mr. Harriman, as well as others from Mr. Robson, are the real plant of Linnæus. It occurs only in mountainous woods or forests, flowering in July, and the root is annual.

This is rather smaller than *M. pratense*, with which it otherwise much agrees in appearance. The stem however is roughish; leaves more constantly undivided; flowers but about half the size of that species, and of a fuller yellow, orange coloured at the mouth. The essential character consists in that part being pervious, not closed, the upper lip being a little elevated, and the lower hanging straight down, not projecting horizontally. The teeth of the calyx are dilated at their base, and the capsule is marked with a net-work of prominent veins. Sometimes the seeds are solitary in each cell, though most frequently in pairs.

Lathyrus sylvestris.

LATHYRUS sylvestris.

Narrow-leaved Everlasting Pea.

DIADELPHIA Decandria.

GEN. CHAR. *Style* flattened, downy above, broader upwards. Two upper segments of the *calyx* shortest.

SPEC. CHAR. Several flowers on a stalk. Tendrils bearing a pair of sword-shaped leaves. Stem winged.

SYN. Lathyrus sylvestris. *Linn. Sp. Pl.* 1033. *Sm. Fl. Brit.* 765. *Huds.* 316. *With.* 634. *Hull.* 161. *Relh.* 272. *Sibth.* 222. *Abbot.* 156. *Curt. Lond. fasc.* 6. *t.* 52.

Lathyri majoris species, flore rubente et albido minore, dumetorum. *Raii Syn.* 319.

SENT by Mr. Pitchford from Brundle, Norfolk, where it was first observed by Mr. Humphrey many years since, on the brow of a hill near a spring to the south of the church, and where it still grows in great plenty, flowering in July and August.

The roots are perennial, long and branching. The stems annual, climbing upon bushes or hedges to the height of 5 or 6 feet, branched, winged, smooth. Tendrils generally three-cleft, bearing a pair of sword-shaped, acute, three-ribbed, grass green, smooth leaves. Stipulæ narrow, half-arrow-shaped, or rather half-hastate, entire. Flowers many together, on long axillary stalks, large and handsome, though less splendid than those of the *L. latifolius*. Their colours are various tints of purple and violet, with a tinge of green. Calyx smooth, with taper teeth. The pods are smooth, tawny when ripe, containing several seeds.

It is an ornamental plant, thriving well in moist shrubberies, but too apt to choak and overwhelm the bushes that afford it support.

1259.

Carex stellulata.

Nov.r 1 1800. Published by Jas. Sowerby, London.

CAREX stellulata.
Little Prickly Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spikelets three or four, remote, androgynous. Fruit divaricated, with an elongated undivided beak.

SYN. Carex stellulata. *Gooden. Tr. of Linn. Soc. v.* 2. 144. *Sm. Fl. Brit.* 966. *With.* 87. *Hull.* 204.

C. muricata. *Huds.* 406. *Lightf.* 549. *Relh.* 350. *Abbot.* 202.

C. echinata. *Sibth.* 28.

Gramen cyperoides spicatum minimum, spicâ divulsâ, aculeatâ. *Raii Syn.* 424.

NOT unfrequent in marshy, rather barren ground, flowering in May and June.

Root fibrous; perennial, as usual with the Carex tribe. Stem from 6 to 12 inches high, erect, straight, simple, naked except at the base, triangular, the angles roughish upwards. Leaves flat, keeled, shorter than the full-grown stem, roughish towards their points. Spike compound; the spikelets 3 or 4, alternate, remote, or at least not crowded together, all at nearly equal distances, roundish, their male flowers below the female and less numerous. A leafy bractea generally stands under the lowest spikelet. Glumes ovate, brown, with a white edge, and broad green nerve. Fruit spreading in every direction, ovate, ribbed, brown, terminating in a rough-edged beak, which is notched at the end, but not deeply cloven, nor gaping. Stigmas two.

The Linnæan herbarium proving this not to be the *C. muricata*, for which Hudson, Leers, and others have taken it, Dr. Goodenough first gave it the name we here adopt.

CAREX paludosa.

Lesser Common Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spikes cylindrical, bluntish, erect; the female with awn-pointed scales; the male with blunt ones. Fruit elliptical, notched.

SYN. Carex paludosa. *Gooden. Tr. of Linn. Soc. v.* 2. 202. *Sm. Fl. Brit.* 1002. *With.* 108. *Hull.* 209.

C. acuta. *Curt. Lond. fasc.* 4. *t.* 61. *Huds.* 413, *γ.* Gramen cyperoides minus, angustifolium. *Dill. in Raii Syn.* 418.

WE have already alluded to this *Carex* in describing the *riparia* and the *acuta* in our 9th volume, *t.* 579 and 580. It is found in watery places, like them, and is full as common as the latter at least, flowering in May. The root is perennial, creeping to a great extent.

Mr. Curtis, with a well founded exultation, expatiates on the circumstances which led him to distinguish these three species, previously huddled together by the generality of botanists as varieties, and we have found his remarks perfectly just. The less slender and more erect form, but especially the 3 stigmas, clearly distinguish this plant from the *acuta*. From the *riparia* it is known by its blunt, more triangular, and brighter-coloured male spikes, with obtuse and not pointed glumes. It is by mistake we have described the male spikes and their glumes in *riparia*, *p.* 579, to be sometimes blunt. The glumes of the female spikes of *paludosa* taper to a point. Its fruit is elliptic-lanceolate, smaller and less inflated than that of *riparia*.

Hydrocharis
Morsus-Ranæ.

Nov.r 1 1800 Published by Jas Sowerby, London

HYDROCHARIS Morsus-ranæ.
Common Frog-bit.

DIOECIA Enneandria.

GEN. CHAR. Male, *Cal.* 3-cleft. *Pet.* 3. Three interior *filaments* beaked. Female, *Cal.* 3-cleft. *Pet.* 3. *Styles* 6. *Caps.* inferior, with 6 cells, and many *seeds.*

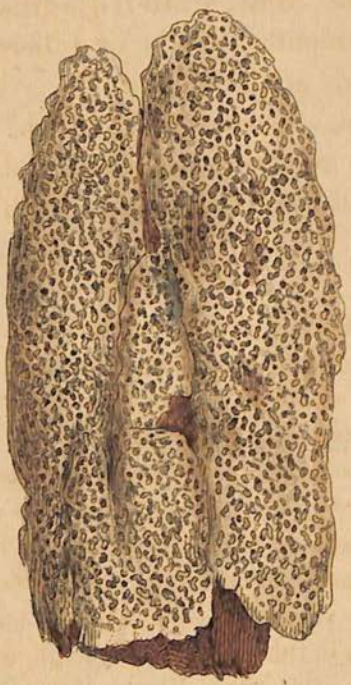
SPEC. CHAR. . . . .

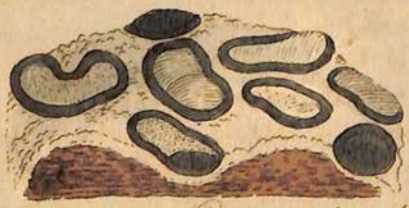
SYN. Hydrocharis Morsus-ranæ. *Linn. Sp. Pl.* 1466. *Huds.* 436. *With.* 394. *Hull.* 222. *Relh.* 373. *Sibth.* 135. *Abbot.* 216. *Curt. Lond. fasc.* 3. *t.* 64.

Stratiotes foliis Asari, semine rotundo. *Raii Syn.* 290.

THE *Hydrocharis* is perennial, floating on the surface of ditches and slow streams, almost covering the water with its leaves, and agreably enlivening it with its delicate and brilliant blossoms in the months of July and August. The stems throw out from their joints clusters of leaves and flowers, accompanied by brown membranous stipulæ, along with several straight simple roots, that descend perpendicularly into the mud. Every part is smooth. The leaves kidney-shaped, entire, often purple beneath. Like most aquatics they abound with air-vessels, perspire very copiously, and dry rapidly. The flowers form a sort of small umbell, invested with a pair of bracteæ, but only one flower in each umbel opens at a time; they are dioecious and very short-lived. In the male flowers about 3 of the upper or interior stamina are barren, the filament terminating in a simple or forked beak, resembling a style; while the styles of the female have a few imperfect antheræ clustered about their base.

Ray mentions a variety with fragrant double flowers, which Mr. Relhan informs us is not now to be found in the place he indicates. Flowers with 6 petals now and then occur.





Opegrapha lyncea

Oct. 1. 1806. Published by Jas Sowerby, London.

LICHEN lynceus.

Speckled Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

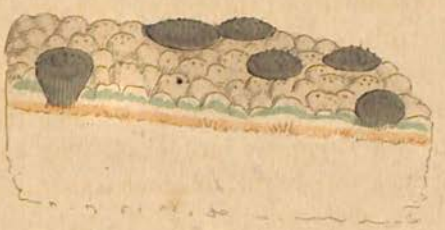
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust white, smooth, uniform. Tubercles numerous, depressed, oblong, curved, rounded at each end, gray, with a black entire edge.

MR. SOWERBY discovered this Lichen about 5 years since, in Hainhault forest, Essex, where it often covers the rugged bark of old oaks almost entirely. Mr. D. Turner has since observed it on an oak near Windsor. We have not met with any figure or description to which this plant can be referred. The plates of Wulfen's and Hoffmann's *albo-cœrulescens* at first sight seem to accord with it, but on accurate examination will be found widely different.

Its crust is very white, smooth, and uniform, scarcely a hair's breadth in thickness, closely applied to the bark, and conforming to all its sinuosities and protuberances. Tubercles exceedingly numerous, small, thick-set, regularly spread over the crust, in which they are partly immersed. Their form is various, but generally oblong, curved, rounded at each end, often kidney-shaped; their surface flat or depressed, grayish, with a narrow, black, scarcely prominent, margin. In time their whole surface becomes black, and then the margin is no longer perceptible.

This species should be placed near *L. scriptus* and *rugosus*, from both which it is however quite distinct. Its tubercles are never branched, nor do they ever terminate in acute points; by which they may be known even in a young state, when they are longitudinally furrowed like the *scriptus*.



Calicium tympanellum.

Oct. 1. 1800. Published by Jas Sowerby London

LICHEN inquinans.

Sooty-knobbed Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust white, granulated. Tubercles a little prominent, round, flattish, grayish-black, powdery, with a smooth black edge.

THIS most certainly nondescript Lichen is by no means unfrequently to be met with on dead wood, as pales, gates, &c.; but it seems to prefer such pieces are placed horizontally. Mr. Turner has found it near Yarmouth, Mr. Sowerby in Essex. Probably many botanists have neglected it as a supposed variety of *sanguinarius*, a species under which more than two or three have been confounded.

In crust indeed this is not very different from the genuine *sanguinarius*, except in not being red within, but on the contrary greenish just under the surface. The tubercles however, which are copiously produced, and scattered irregularly over the crust, afford a character no less obvious than decisive, first observed by Mr. Turner. On the slighest touch they stain the finger with a very fine black sooty powder, which is discharged by innumerable pores in their disk, being probably the seed. This distinguishes it from every other crustaceous Lichen with which we are acquainted. The *sphærocephalus* indeed, *v.* 6. *t.* 414, has tubercles that produce a powder mixed with fibres, and those tubercles stand on long stalks, to which ours even in that respect betrays an affinity when its tubercles are dissected from the crust.

Fedia olitoria.

VALERIANA Locusta.

Corn Sallad, or Lamb's Lettuce.

TRIANDRIA Monogynia.

GEN. CHAR. *Cal.* none. *Cor.* of 1 petal, superior, gibbous on one side at the base. *Seed* one.

SPEC. CHAR. Stamina three. Stem forked. Leaves linear-tongue-shaped, blunt.

SYN. Valeriana Locusta. *Linn. Sp. Pl.* 47, α. *Sm. Fl. Brit.* 39. *Huds.* 13. *With.* 66. *Hull.* 11. *Relh.* 14. *Sibth.* 21. *Abbot.* 8. *Curt. Lond. fasc.* 5. *t.* 4. *Mart. Fl. Rust. t.* 24.

Valerianella arvensis præcox humilis, semine compresso. *Raii Syn.* 201.

IN cornfields and all kinds of cultivated ground the corn-sallad is a common well-known weed, flowering from April to June. At an earlier period its leaves are eaten as a sallad.

The root is small and annual. Herb of a pale grayish green, generally a little downy. Stem forked and spreading, corymbose, each branch topped with a little head of small pale blue or flesh-coloured flowers. Leaves opposite, various in form, but more or less tongue-shaped and bluntish, occasionally entire, serrated, or laciniated. Corolla unequally five-cleft in the border. Stamina 3. Stigma blunt, notched. Seed of a swelling ovate figure, rather compressed, ribbed most on one side, smooth, crowned with 5 minute teeth. The flowers are encompassed with partly membranous bracteæ.

Such is our common plant, from which the varieties mentioned by Withering are certainly not specifically different. Those enumerated in the *Species Plantarum*, which differ so widely in their fruit, seem to claim the rank of species; but none of them having been found in Britain, it is not to our present purpose to investigate this point. Mr. Edward Forster has gathered in Cornwall a variety with much less swelling seeds than that now before us, which we recommend to the study of Cornish botanists.

Published Dec.r 1. 1800 by Jas. Sowerby, London.

AIRA caryophyllea.

Silver Hair-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, 2-flowered. *Cor.* of 2 valves. *Florets* without any imperfect one between them.

SPEC. CHAR. Leaves slender and tapering. Branches of the panicle ternate, spreading. Florets sessile. Awn from the back of the corolla, twisted.

SYN. Aira caryophyllea. *Linn. Sp. Pl.* 97. *Sm. Fl. Brit.* 88. *Huds.* 36. *With.* 138. *Hull.* 20. *Relh.* 32. *Sibth.* 39. *Abbot.* 16. *Curt. Lond. fasc.* 6. *t.* 6. *Dicks. H. Sicc. fasc.* 4. 5.

Gramen paniculatum, locustis parvis purpuro-argenteis, annuum. *Raii Syn.* 407.

THIS pretty grass, with its elegant silvery panicles, frequently ornaments the most barren sandy or gravelly fields and hills, flowering about June or early in July, after which it is soon dried up, the root being annual and very small, little calculated to resist drought.

From one root arise several spreading slender stems about a span high, smooth and leafy. The radical leaves soon wither; those on the stem are narrow and tapering, with long sheaths, and lanceolate longish stipulæ. Panicle very slender and hair-like, divided and subdivided in a ternate manner, smooth and divaricated. Flowers small, ovate, green or purplish, with a shining silvery hue scarcely to be expressed in a drawing. Calyx-glumes rough at the keel, membranous at the point. Florets both sessile, downy at their base. Outer valve of the corolla bearing a twisted awn on its back, about twice its own length.

This grass may contribute towards the early summer food of sheep, for which reason probably Mr. Stillingfleet figured it in his work; but it is justly observed in the Flora Londinensis, that so insignificant an annual can hardly be worth cultivating for the improvement of meadows or pastures.

HOLCUS avenaceus.

Oat-like Soft-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, 2-flowered; one of the flowers with an imperfect germen. *Cor.* of 2 valves; the outer one awned.

SPEC. CHAR. Calyx-glumes unequal, smooth. Hermaphrodite floret a little elevated, scarcely awned: male with a bent awn. Root knotty.

SYN. Holcus avenaceus. *Sm. Fl. Brit.* 90. *Sibth.* 40.
Avena elatior. *Linn. Sp. Pl.* 117. *Huds.* 53. *With.* 163. *Hull.* 26. *Relh.* 48. *Abbot.* 25. *Curt. Lond. fasc.* 3. *t.* 6. *Mart. Fl. Rust. t.* 7.
Gramen nodosum, avenaceâ paniculâ. *Raii Syn.* 406.

FREQUENT in bushy places, hedges, and by road-sides, flowering in June and July.

The root is perennial, formed generally of two knots or swoln joints, one above another, throwing out downy fibres. Stem upright, 3 feet high, straight, unbranched, leafy, smooth, consisting of about 3 joints. Leaves of a darkish green, spreading, flat, rough and rather harsh. Stipula short, abrupt, minutely toothed. Panicle upright, the branches half-whorled, and consequently leaning one way, as in many grasses; the branches rough, and mostly subdivided. Calyx shorter than the corolla, and formed of 2 unequal sharp valves, rough on the keel. Male floret sessile, generally furnished with the rudiments of a germen, and always conspicuously awned; the hermaphrodite floret stands on a small foot-stalk, and its awn is very minute, almost terminal, often scarcely visible. Antheræ purplish, pendulous.

This grass has certainly a great affinity to some species of *Avena;* but the small number of its florets, and one of their germens being abortive, justify its removal to *Holcus*, with which it agrees sufficiently in other respects. We are aware what a heterogeneous assemblage there is in this genus (as well as in *Andropogon*), but that does not concern the British botanist.

TRITICUM junceum.

Sea Rushy Wheat-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, solitary, many-flowered, upon a zigzag toothed *rachis*.

SPEC. CHAR. Calyx blunt, five-flowered. Leaves rolled inward, sharp-pointed.

SYN. Triticum junceum. *Linn. Sp. Pl.* 128. *Sm. Fl. Brit.* 127. *Huds.* 58. *With.* 173. *Hull.* 28. *Dicks. H. Sicc. fasc.* 6. 9.

Gramen maritimum, spicâ loliaceâ, foliis pungentibus, nóstras. *Dill. in Raii Syn.* 391.

NOT uncommon in the loose sand of the sea-coast, which its long tough creeping roots, throwing out numerous woolly fibres, help to confine and keep stationary; to which purpose this grass co-operates with *Carex arenaria*, *Elymus arenarius*, and *Festuca rubra*. It flowers in July.

The whole plant is very glaucous; the lower part of the stem is however of a more or less vivid violet hue, and very smooth or shining. Leaves rigid and sharply pungent, perfectly smooth at the back; their upper side marked with numerous longitudinal rough furrows. Stipula very short. Spike solitary, erect, straight and stiff, much broader in proportion to its length than that of any other British *Triticum*, and consisting of numerous alternate flat spikelets, of 5 or 6 florets each, perfectly smooth and beardless. The glumes are furrowed and blunt; the interior valve of the corolla flat, and fringed.

The two varieties, *Raii Syn.* 391, *n.* 5 and 6, prove, by original specimens, to differ very little from this. A maritime variety of *T. repens*, *Raii Syn.* 390, *n.* 3, is often taken for *T. junceum*; and Mr. Relhan, anxious as every true naturalist ought to be for the promotion of truth, has authorised us to say that his *T. junceum*, *p.* 55, is no other. Some able botanists have on the other hand taken this variety, and others the true *T. junceum*, for *Elymus arenarius*.

Galium saxatile.

GALIUM saxatile.

Smooth Heath Bed-straw.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat, superior. *Seeds* 2, roundish.

SPEC. CHAR. Leaves six in a whorl, obovate, obtuse, tipped with a small point. Stem much branched, prostrate, smooth. Fruit granulated.

SYN. Galium saxatile. *Linn. Sp. Pl.* 154. *Sm. Fl. Brit.* 175.

G. montanum. *Huds.* 67. *Relh.* 66.

G. procumbens. *With.* 187. *Hull.* 36. *Sibth.* 59. *Abbot.* 34.

Mollugo montana minor, Galio albo similis. *Raii Syn.* 224.

MR. HUDSON published this plant by the name of *G. montanum* in 1762, and the same year Linnæus described a very different species under the same name. It becoming therefore necessary to give ours a new denomination, Dr. Withering and his followers have called it *procumbens*, none of them having been aware of its being the real *saxatile* of both editions of *Sp. Plantarum*.

It is very abundant in heathy bushy places, flowering plentifully from June to the end of summer. The roots are perennial and creeping. Stems much branched, procumbent or straggling, smooth, bearing numerous whorls of spreading obovate leaves, 6 in a whorl, each tipped with a short bristly point, and for the most part rough at the edge. The panicles are terminal, three-forked, smooth. Flowers milk-white, small, but conspicuous from their number. Fruit small, neither bristly nor smooth, but studded all over with minute prominent granulations, by which circumstance alone this may be known from every other British *Galium*, except the *tricorne*, which is widely different from it in other respects.

Galium Aparine

GALIUM Aparine.

Goose-grass, or Cleavers.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, flat, superior. *Seeds* 2, roundish.

SPEC. CHAR. Leaves eight in a whorl, lanceolate, keeled, rough, fringed with reflexed prickles. Stem weak. Fruit bristly.

SYN. Galium Aparine. *Linn. Sp. Pl.* 157. *Sm. Fl. Brit.* 180. *Huds.* 70. *With.* 192. *Hull.* 36. *Relh.* 67. *Sibth.* 60. *Abbot.* 34. *Curt. Lond. fasc.* 2. *t.* 9. *Mart. Fl. Rust. t.* 104. *Woodv. Suppl. t.* 269. *Dicks. H. Sicc. fasc.* 17. 3.

Aparine. *Raii Syn.* 225.

THIS grows on every hedge, and is well known by the facility with which it adheres to the hands or clothes of such as go in the way of it. The ripe seeds especially hang to the coats of animals, and are thus widely dispersed. Most truly has Linnæus observed, in one of his excellent dissertations, that plants so furnished with the means of sticking to animals, and which therefore are likely finally to be scattered about their habitations, are such as thrive best in a rank manured soil; instances of which are *Arctium*, *Xanthium*, *Cynoglossum*, *Asperugo*, and many more. The pert sceptic may despise the investigation of final causes; a rational naturalist will not easily resign the privilege of adoring at every step the immediate agency of an all-wise and beneficent Providence.

The *G. Aparine* is an annual, and flowers all summer long. The weak stem is supported by bushes. The minute prickles that clothe the whole herb point backwards, and are somewhat hooked. The flowers grow but few together, and are of a pale buff-colour. The expressed juice of the plant is recommended as an antiscorbutic. We have not had an opportunity of judging of its merits, nor does Dr. Woodville bring any fresh testimonies in its favour.

Published Dec.1. 1800. by Jas. Sowerby

SYMPHYTUM officinale.

Common Comfrey.

PENTANDRIA Monogynia.

GEN. CHAR. Limb of the *corolla* tubular, swelling; its orifice closed with awl-shaped rays. *Cal.* in 5 deep segments. *Seeds* 4, naked.

SPEC. CHAR. Leaves ovato-lanceolate, decurrent.

SYN. Symphytum officinale. *Linn. Sp. Pl.* 195. *Sm. Fl. Brit.* 218. *Huds.* 81. *With.* 230. *Hull.* 47. *Relh.* 78. *Sibth.* 70. *Abbot.* 42. *Curt. Lond. fasc.* 4. *t.* 18. *Woodv. Suppl. t.* 215.

S. magnum. *Raii Syn.* 230.

A FREQUENT native of watery places, banks of rivers, and about ditches, flowering from the end of May to September.

Root perennial, fleshy, externally black. Stem two or three feet high, upright, leafy, winged, branched at the top, clothed with short bristly hairs that point rather downward. Leaves decurrent, ovato-lanceolate, waved, pointed, veiny, rough; the radical ones on footstalks, and broader than the rest. Clusters of flowers in pairs on a common stalk, with an odd flower between them, recurved, dense, hairy. Corolla yellowish-white, sometimes purple, the rays downy at each edge.

Dr. Sibthorp has made a new species of the red or purple-flowered variety, distinguishing it by a shorter and spreading calyx, a mark which we and several of our friends have in vain tried to discover.

The Comfrey root abounds in a pure tasteless mucilage, like that of the Marsh-mallow; and being (as Dr. Woodville observes) more easily obtained, it ought not to be omitted in lists of medicinal plants. Such medicines are useful in irritations of the throat, intestines, and above all the bladder

Anthriscus vulgaris

SCANDIX Anthriscus.

Rough Chervil.

PENTANDRIA Digynia.

GEN. CHAR. *Gen. Involucrum* none. *Flowers* radiant. *Petals* notched. *Fruit* awl-shaped. *Central flowers* often male.

SPEC. CHAR. Seeds ovate, bristly, beaked. Corolla uniform. Stem smooth.

SYN. Scandix Anthriscus. *Linn. Sp. Pl.* 368. *Sm. Fl. Brit.* 325. *Huds.* 124. *Relh.* 121. *Sibth.* 100. *Abbot.* 66. *Curt. Lond. fasc.* 1. *t.* 19. *Mart. Fl. Rust. t.* 75. *Dicks. H. Sicc. fasc.* 15. 3.

Caucalis scandicina. *With.* 289. *Hull.* 59.

Myrrhis sylvestris seminibus asperis. *Raii Syn.* 220.

THE plant now before us is remarkable for growing almost exclusively in the neighbourhood of large towns, and its rough seeds perhaps afford another instance of that provision of nature we have remarked in *Galium Aparine*, *t.* 816. The banks of hedges, and other dry dusty much-frequented places, abound with it in the spring; nor does the whole vegetable kingdom afford a more exquisite green, nor scarcely a more rich and elaborate foliage, than the young plants of this *Scandix* display in the earliest months of the year. Its beauty in that state readily distinguishes it from all its neighbours. In May the flowers are in perfection, and the herb soon sows its seeds and withers away.

The stem is 2 or 3 feet high, round, very smooth, a little swelling under each joint. Leaves triply winged, finely cut, a little hairy. Umbels lateral and terminal, of 5 or more general rays, without an involucrum; and as many partial ones, with small partial involucra. Flowers small, white, all uniform and hermaphrodite. Seeds ovate, rough, crowned with a short smooth beak, which so perfectly evinces its affinity to *Scandix*, and is so peculiar to the genus, that we cannot sufficiently wonder at those who first removed this plant to *Caucalis*.

Crithmum
maritimum.

CRITHMUM maritimum.

Sea Sampire.

PENTANDRIA Digynia.

GEN. CHAR. *Involucra* general and partial. *Fruit* oval, compressed, striated. *Flowers* regular. *Cal.* entire.

SPEC. CHAR. Leaflets lanceolate, fleshy.

SYN. Crithmum maritimum. *Linn. Sp. Pl.* 354. *Sm. Fl. Brit.* 306. *Huds.* 117. *With.* 295. *Hull.* 62. *Dicks. H. Sicc. fasc.* 12. 16.

C. marinum. *Raii Syn.* 217.

FOR this classical specimen of an English plant by no means generally known, we are obliged to L. W. Dillwyn, Esq. F.L.S., who gathered it on the very cliff at Dover so finely described by Shakspeare in his King Lear:

——"Half way down
Hangs one that gathers Sampire; dreadful trade!"

It is not uncommon in similar situations; but the more universal *Salicornia* has not only usurped its English name Samphire, (or rather Sampire, as it is a corruption of the French *Saint Pierre*,) but almost supplanted it at our tables as a pickle, though totally deficient in the aromatic flavour which is the recommendation of the *Crithmum*.

The long perennial branching roots run deep into fissures of rocks. The herb is bushy and succulent, particularly its leaves, which are twice or thrice ternate, entire and almost linear, very unlike those of any other British umbelliferous plant; their colour a little glaucous. Umbels dense, hemispherical. General and partial involucra small, ovate, undivided. Flowers greenish-white, all regular and fertile. Their petals incurved, broad at the base; whereas in most of this tribe the petals are furnished with claws. Fruit elliptical, furrowed, fleshy, smooth.

Nov.1 1800 Published by Jas Sowerby.

LICHEN cinereus.

Grey cluster-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust grayish white, cracked and tessellated, with a black edge. Shields sunk, irregular, concave, black, often two or three in each portion of the crust.

SYN. Lichen cinereus. *Linn. Mant. 132. Huds. 525. Achar. Prod. 32. Hoffm. Enum. t. 4. f. 3.*

Verrucaria multipuncta. *Hoffm. Fl. Germ. v. 2. 185.*

Patellaria multipuncta. Hoffm. Pl. Lich. t. 63. f. 1—3.

SEVERAL of the crustaceous Lichens of Linnæus and other authors are so slightly described, as to be involved in almost impenetrable obscurity. Many different productions perhaps accord equally well with each description, and the authors themselves may often have intended more than one under each. Among these, few botanists have been well acquainted with the *cinereus*, first described in the *Mantissa*. The *ater* of Hudson, as Dr. Acharius (in his excellent work on Lichens, lately published in Sweden) justly observes, is *cinereus* of most authors: we know it to be the *cinerascens* of Dr. Withering, by a specimen from himself to Mr. D. Turner, in which the margin of the shields is merely a little grayish, not white as in common *ater*. He therefore erroneously quotes Prof. Hoffmann's figure, *Enum. Lich. t. 4. f. 3*, which is our true *cinereus*, and was so understood by Hoffmann. As Acharius confirms this, and a specimen from Mr. Dickson of what he conceives to be Mr. Hudson's plant accords with it, we have no doubt remaining, though the Linnæan collection has no specimen marked *cinereus*.

This plant is remarkable for having frequently 2 or more of its hollow irregular shields situated in one portion of the crust, but not close together. It grows on stone walls as well as rocks. On granite the crust is more gray than on calcareous stones, in which state it is Hoffmann's *Patellaria multipuncta*. The Rev. Mr. Alderson sent these specimens from Norfolk.

Lecidea lapicida?

Dec.t 1. 1800. Published by Jas. Sowerby, London.

LICHEN contiguus.

Glaucous crowded-shielded Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Crust glaucous-white, tessellated and granulated. Shields clustered, depressed, flattish, angular, black, with a narrow, black, elevated margin.

SYN. Verrucaria contigua. *Hoffm. Fl. Germ. v.2.* 184.

FOUND by Mr. D. Turner on old brick walls about Yarmouth, and by Mr. Sowerby in similar situations at Kennington, Surrey. Specimens from Germany show it to be the *Verrucaria contigua* of Professor Hoffmann, which Dr. Acharius in his Prodromus combines with our *L. concentricus t.* 246, and Hoffmann's *V. cicatricosa, pantherina* and *tigrina*, under one species called by him *lapicida*. To this union we can by no means assent. *L. concentricus* appears to us perfectly distinct from *contiguus*, not only in the concentric arrangement of its shields, but in their regularly smaller size, concave figure, and thicker whitish margin, as well as in the purer white of the crust. Of this *V. pantherina* and *tigrina* appear from the figures, *Pl. Lichenosæ t.* 57, to be varieties. *V. cicatricosa* seems to be given by Hoffmann himself as a mere variety of that now before us.

This has been observed with us upon bricks only, which it clothes in large patches of a greenish or glaucous-white tartareous crust, cracked or tessellated all over, and a little granulated; at the edge sometimes blackish, sometimes feathery, but these circumstances are far from general. The shields are numerous, more or less crowded or clustered together (as they advance in age) into patches or lines, and thus rendering one another very angular. Their disk is depressed, at length a little convex and rugged, black, surrounded by a sharp thin elevated margin. The crust is sometimes red within.

L. confluens is nearly allied to this, but its blue or blackish gray crust and more prominent shields seem to keep it distinct.

822

2345

Delesseria sinuosa

FUCUS sinuosus.

Red oak-leaved Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stem round, branched. Leaves oblong, waved, acute, sinuated or pinnatifid, fringed with minute leaflets.

SYN. Fucus sinuosus. *Gooden. and Woodw. in Linn. Trans. v. 3. 111. Hull. 316.*

F. rubens. *Huds. 573. Lightf. 943. With. v. 4. 94. Stackh. Ner. t. 7.*

F. roseus. *Fl. Dan. t. 652.*

F. crenatus. *Gmel. Fuci 184. t. 24. f. 1.*

F. membranaceus purpureus latifolius pinnatus. *Dill. in Raii Syn. 47.*

A FREQUENT species on all our sea-coasts, generally remarked by the most superficial observers for its elegance of form and colour. It appears to have escaped the notice of Linnæus. Mr. Hudson mistook it for his *F. rubens.*

The whole plant is of an uniform red, not so vivid as that of a rose. Under a strong magnifier the whole surface, rib and all, appears thickly studded with minute dots, darker than the general membrane: see our figure. The stem is round, slender, branched, generally short, fixed to the rocks or stones by a small expansion of its base. Leaves variously sinuated and pinnatifid, membranous, often united at their base, for the most part opposite, furnished with a central rib, ending in a point. Their margin is beautifully fringed with minute leaflets, generally pointed, sometimes oval and blunt, in which several minute clusters of seeds are lodged. Similar leaflets sometimes accompany the nerve. The figures of Gmelin and the *Flora Danica* represent this Fucus in a more advanced and proliferous state.

Fucus canaliculatus.

Published June 1 1821 by Sol Sowerby

FUCUS canaliculatus.

Channelled Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond dichotomous, linear, channelled on one side, entire, nerveless, with blunt, forked, swelling, fruit-bearing tips.

SYN. Fucus canaliculatus. *Linn. Syst. Nat. ed.* 12. *v.* 2. 716. *Huds.* 583. *With. v.* 4. 99. *Hull.* 322. *Gooden. and Woodw. in Linn. Trans. v.* 3. 172.

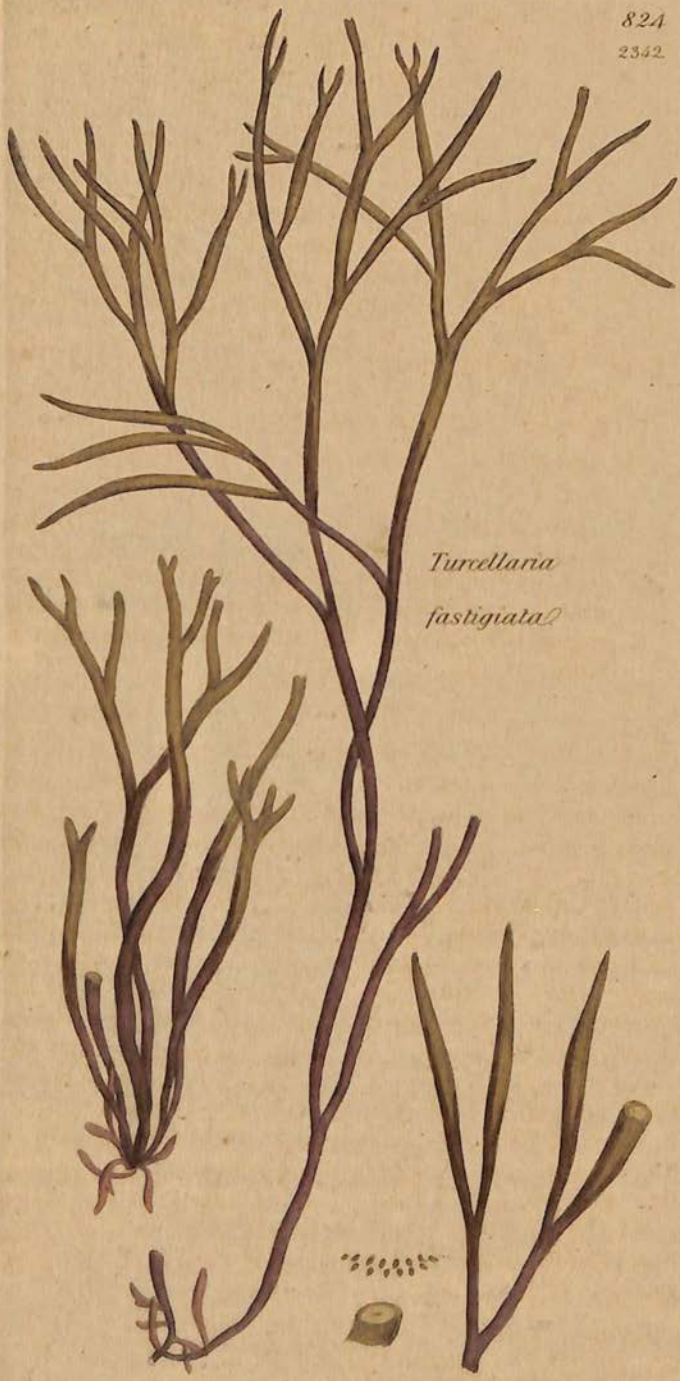
F. excisus. *Linn. Sp. Pl.* 1627. *Syst. Nat. ed.* 12. 715. *Fl. Dan. t.* 214.

F. pumilus dichotomus, segmentis ex unâ parte gibbosis, ex alterâ excavatis. *Raii Syn.* 43.

NOT uncommon on submarine rocks in various parts of the British coast; sometimes about the mouths of large rivers.

It is known by its fronds being channelled or concave on one side, convex on the other, of an olive brown, branched from the very bottom in a forked manner, entire and even at the edge, notched at the tip when barren. The fructification is situated in swelling, forked or twin, rugged, oblong, terminal protuberances, of a paler and more yellowish olive than the rest of the plant, studded with clusters of seeds.

Linnæus was not aware, when he wrote the 12th edition of his *Systema Naturæ*, that this Fucus was the *excisus* of *Sp. Pl.*, consequently it occurs twice in the first-mentioned book. He afterwards in some measure corrected the error, by making *excisus* a variety of *canaliculatus;* but in truth they are one and the same plant.



Turcellaria
fastigiata?

FUCUS lumbricalis.

Worm-like Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Frond thread-shaped, forked, branched; its terminal branches pointed, equal and level; angles of the divarications acute.

SYN. Fucus lumbricalis. *Gmel. Fuci* 108. *t.* 6. *f.* 2. *Huds. ed.* 1. 471. *Gooden. and Woodw. in Linn. Trans. v.* 3. 204. *Hull.* 325.

F. fastigiatus. *Huds.* 588. *Lightf.* 930. *With. v.* 4. 110.

F. furcellatus. *Huds.* 589. *Lightf.* 932. *Fl. Dan. t.* 419.

F. parvus, segmentis prælongis teretibus acutis, et Fucus sive Alga exigua dichotomos, foliorum segmentis longiusculis, crassis et subrotundis. *Raii Syn.* 45.

COMMON on all our coasts. From the base of the frond, which is fixed, as usual, by a small callous dilatation to the rocks or stones, several shoots are thrown out, furnished with callosities which attach themselves in a similar manner, and then produce young plants, so that the root is properly of the creeping kind. Frond 4 or 6 inches high, of a very dark olive, forked repeatedly, round, and as thick as a common packthread, smooth, its divarications forming acute angles, in which last respect it differs from *F. tuberculatus*, *t.* 726. The branches terminate in a pair of cylindrical, pointed, rather swelling protuberances, in which the seeds are copiously lodged. This is the perfect or fructifying state of the plant, and what Hudson and Lightfoot took for *F. furcellatus* of Linnæus, which it is not, though Linnæus himself made the same mistake in reading Gmelin. The *fastigiatus* of our British authors is the same plant with short blunter terminations of the branches, without seeds. Mr. Woodward has both kinds on the same root. *F. fastigiatus* of Linnæus is still a different species.

STELLARIA glauca.

Glaucous Marsh Stitchwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5. deeply cloven. *Caps.* superior, of 1 cell, with 6 teeth at the orifice. *Seeds* numerous.

SPEC. CHAR. Leaves linear-lanceolate, entire, glaucous. Flower-stalks erect. Calyx three-nerved, shorter than the petals.

SYN. Stellaria glauca. *With.* 420. *Sm. Fl. Brit.* 475. *Sym. Syn.* 108. *Hull.* 97.

S. media. *Sibth.* 141. *Abbot.* 96.

S. graminea β. *Huds.* 190.

Caryophyllus holosteus arvensis medius. *Raii Syn.* 347.

ALTHOUGH it may be difficult to draw up a very striking specific character between this plant and the *S. graminea* represented in *t.* 803, there can be no question of their being perfectly distinct species. The present is found only in moist meadows, or about ditches. Its glaucous colour, perfect smoothness of the edges of the leaves as well as of the stem, and larger flowers, the petals being twice as long as the calyx; to which may be added that the flower-stalks are more universally lateral and solitary, much less collected into a panicle, and the 3 nerves of the calyx less sharply prominent; all these circumstances help to distinguish it from the former. In colour, size and general habit it rather approaches the *S. holostea*, *t.* 511; but that is beautifully distinguished by the total want of nerves in its calyx, and the rough edges of its leaves and stem.

S. glauca is not a very general plant, though it may be found in moist situations in many parts of Great Britain, especially where the soil is gravelly. It begins to flower towards the end of June, and lasts till August. The antheræ are of a pale reddish brown.

826

722.

RUBUS cæsius.

Dew-berry.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaflets three, hairy beneath; the lateral ones lobed externally. Stem prickly, prostrate, glaucous. Calyx embracing the fruit.

SYN. Rubus cæsius. *Linn. Sp. Pl.* 706. *Sm. Fl. Brit.* 542. *Huds.* 220. *With.* 468. *Hull.* 111. *Relh.* 194. *Sibth.* 160. *Abbot.* 111.

R. minor, fructu cæruleo. *Raii Syn.* 467.

THE Dew-berry bush is to be found in dry shady ditches, woods, and the borders of fields, not very unfrequently, though it must be reckoned a far less common plant than the *Rubus fruticosus* or *corylifolius*. It flowers in June or July, and the fruit lasts throughout August and September; often later.

The stems are weak and trailing, round, prickly, pale-green with a vivid glaucous tinge. Though woody, they are only annual, or at most biennial. Leaves three on a stalk, sharply and doubly serrated, downy (not hoary) beneath; the lateral leaflets sessile, generally lobed on the outside. Stipulæ lanceolate. Footstalks prickly and downy. All the prickles are slender, a little curved. Flowers few together in terminal or axillary prickly panicles. Calyx spreading in the flower, closed about the fruit; its leaves tipped with long points. Petals waved and crumpled, white, rarely reddish. Fruit of few and rather large grains, black with a bright blue tinge or bloom like that of a plum. Its flavour is agreeably acid, without the faint taste of the common black-berry, and, if it were sufficiently plentiful, might be brought to table with advantage.

827

723.

Rubus corylifolius.

Jan.ª 1. 1801. Published by Jas. Sowerby, London.

RUBUS corylifolius.

Hazel-leaved Bramble.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5. *Berry* superior, composed of several single-seeded grains.

SPEC. CHAR. Leaflets generally five, hairy beneath; the lateral ones sessile. Prickles straightish. Calyx reflexed.

SYN. Rubus corylifolius. *Sm. Fl. Brit.* 542.
R. fruticosus major. *With.* 469. *Hull.* 111.
R. major, fructu nigro. *Schmidel Ic. t.* 2.

WE have alluded to this *Rubus* in describing the *fruticosus*, *t.* 715. Although equally common with that, it has been altogether neglected, or at most allowed to be a variety, till Mr. Crowe examined, and, in our opinion, fully ascertained it as a species. Dillenius, in Ray's Synopsis, p. 467, seems to hint at it as differing from the common bramble in having "earlier, larger, and white blossoms:" which is true. Its more essential differences however consist in the stem being roundish, biennial, not truly shrubby and perennial; much more brittle; so that it is rejected by thatchers, who use the other for binding their thatch; all the prickles nearly straight, not hooked; the leaflets large, always green on both sides, never white beneath, sometimes very exactly resembling the leaves of a hazel; the lateral ones sessile. Add to this that the fruit is earlier, of a browner black, more gratefully acid than in the *fruticosus*, and composed of rather fewer grains. The calyx of the fruit is reflexed; for an observation to the contrary in the *Flo. Britannica*, borrowed from Mr. Wigg, rather belongs to *R. cæsius*, as we have this summer verified.

Prof. Hoffmann thinks this bramble is the *fruticosus* of his German Flora for 1800, and the true *fruticosus* his *tomentosus*; but a specimen communicated by Dr. Schrader proves the latter to be quite different from both ours.

Teucrium
Scordium.

TEUCRIUM Scordium.

Water Germander.

DIDYNAMIA Gymnospermia.

GEN. CHAR. Upper lip of the *corolla* divided down below its base and divaricated. *Stam.* projecting above it.

SPEC. CHAR. Leaves sessile, oblong, with tooth-like serratures. Flowers axillary, in pairs, on stalks. Stem procumbent.

SYN. Teucrium Scordium. *Linn. Sp. Pl.* 790. *Sm. Fl. Brit.* 606. *Huds.* 247. *With.* 519. *Hull.* 130. *Relh.* 219. *Sibth.* 180. *Woodv. Med. Bot. t.* 57.

Scordium. *Raii Syn.* 246.

THE officinal *Scordium* has been supposed almost peculiar to the marshes of the Isle of Ely, where it grows in plenty. Mr. Relhan has however observed it in several situations nearer Cambridge, and from thence we received a wild specimen by favour of the Rev. J. Holme. It has moreover a place in the *Flora Oxoniensis*. We know of no other part of Britain that produces it.

The root is perennial and creeping. Stems spreading, or even prostrate, square, branched, leafy, hairy. Leaves numerous, opposite, sessile, elliptical or oblong, strongly serrated, veiny, a little downy. Flowers about ♀ in the bosom of each leaf, on stalks, pale purple, smaller and less handsome than those of the Wall Germander, *t.* 680. Calyx downy, tubular, with 5 nearly equal teeth.

The whole herb is very bitter, with a strong disagreeable scent, somewhat approaching to garlick. It has been supposed useful to cure or to prevent pestilential diseases, as well as to remove obstructions, expel worms, and cleanse ulcers—a sort of key to all locks, now grown rusty and out of use.

Stachys germanica.

STACHYS germanica.

Downy Woundwort.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, awned. Upper lip of the *corolla* vaulted; lower reflexed at the sides, the large middle segment notched. *Stamina* when old bent outwards.

SPEC. CHAR. Many flowers in a whorl. Leaves crenate. Stem woolly, erect.

SYN. Stachys germanica. *Linn. Sp. Pl.* 812. *Sm. Fl. Brit.* 634. *Huds.* 259. *With.* 532. *Hull.* 132. *Sibth.* 186.

S. Fuchsii. *Raii Syn.* 239.

IN corn-fields and by way-sides on the limestone soil of Oxfordshire the *Stachys germanica* has long been observed; but the Rev. Mr. Hemsted discovered this plant on a hill 2 miles from Bedford in September last, a new British station for it, from whence he favoured us with the present specimen.

The root is perennial. Whole herb remarkably invested with a white soft silky pubescence, in which respect it is only inferior to the garden *Stachys lanata*, a species that differs from it besides in having blunter leaves, stems procumbent at the base, and taking root at that part. The stems of our plant are erect. Leaves ovate, rather pointed, sharply crenate, reticulated with veins, silky above, most woolly beneath; the radical ones on long stalks; the rest smaller and nearly sessile. Whorls axillary, numerous, many-flowered; the upper ones crowded. Bracteæ linear. Flowers purple within, streaked about the mouth with white; their outside whitish and very downy, especially the upper lip. Stamina hairy. Seeds roundish, black.

Apargia autumnalis.

HEDYPNOIS autumnalis.

Autumnal Hedypnois.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* naked, punctate. *Cal.* imbricated, with scales at the base. *Down* feathery, sessile, unequal.

SPEC. CHAR. General stalk branched; partial scaly. Leaves lanceolate, toothed or pinnatifid, smoothish.

SYN. Hedypnois autumnalis. *Sm. Fl. Brit.* 826. *Huds.* 341.

Leontodon autumnale. *Linn. Sp. Pl.* 1123. *With.* 680. *Hull.* 173. *Relh.* 295. *Sibth.* 238. *Abbot.* 170.

Hieracium minus, præmorsâ radice. *Raii Syn.* 164.

COMMON every where in meadows and pastures, flowering about August and later.

Root perennial, abruptly bitten off, furnished with very long simple fibres from its sides. Leaves almost altogether radical, lanceolate, generally smooth, rarely a little rough, variously and unequally pinnatifid or merely toothed, oblique or somewhat serpentine in their general form or position. General stalk one or more, spreading, curved and zigzag, branched, not quite smooth, terminating in a few long scaly flower-stalks which are hollow, and according to the just observation of the Rev. Mr. Holme each contains a little tuft of very white cotton that seems peculiar to the plant. Calyx and top of the stalk a little downy. Flowers bright-yellow, not large, often reddish on the outside. Seeds slender, furrowed, all crowned with sessile feathery down.

The late Rev. Mr. Bryant observed in Norfolk, a few years since, a singular variety whose flowers were proliferous, bearing from the margin of their receptacle a series of lesser flowers on stalks, much like the hen-and-chicken daisy.

1103.

HYPOCHÆRIS radicata.

Long-rooted Cat's-ear.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Recept.* chaffy. *Cal.* somewhat imbricated. *Down* feathery.

SPEC. CHAR. Leaves runcinate, bluntish, rough. Stems branched, naked, smooth. Flower-stalks scaly.

SYN. Hypochæris radicata. *Linn. Sp. Pl.* 1140. *Sm. Fl. Brit.* 842. *Huds.* 347. *With.* 692. *Hull.* 172. *Relh.* 301. *Sibth.* 242. *Abbot.* 172. *Curt. Lond. fasc.* 3. *t.* 52.

Hieracium longiùs radicatum. *Raii Syn.* 165.

TWO species of *Hypochæris* have already appeared in this work, *t.* 225 and 575; and that now before us, which is by far the most common, abounding in every pasture, completes the history of the genus as far as regards the British Flora.

This flowers from June to August, and is furnished with a perennial milky very deep root, whence the specific name. Leaves all radical, lying close to the earth, by which they entirely choke all other plants within their reach; their form is oblong, bluntish, runcinate inclining to lyrate, toothed, and they are clothed with rigid hairs. The stems, or rather common flower-stalks, are upright, very much branched, round, smooth, somewhat glaucous; the partial ones scaly, and swelling upwards. Flowers large, bright yellow. Calyx-scales roughish at the keel. Receptacle beset with long sharp chaffy scales among the florets, the character of the genus, by which this is at once known from other common plants, vulgarly confounded under the name of Hawkweeds. Seeds furrowed, with minute tubercles on the intermediate ridges. Down on a stalk, feathery and rough.

892.

1263.

Carex remota.

Lond. Pub. Feb. 1. 1800 by J. Sowerby

CAREX remota.

Remote Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. Female, *Catkin* imbricated. *Cal.* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

SPEC. CHAR. Spikelets solitary, remote, androgynous, nearly sessile. Bracteæ very long, surmounting the stem. Seed-tunic almost entire.

SYN. Carex remota. *Linn. Sp. Pl.* 1383. *Sm. Fl. Brit.* 969. *Gooden. Tr. of Linn. Soc. v.* 2. 150. *Huds.* 407. *With.* 88. *Hull.* 205. *Relh.* 351. *Sibth.* 28. *Abbot.* 203.

C. axillaris. *Linn. Sp. Pl.* 1382.

Gramen cyperoides angustifolium, spicis parvis sessilibus in foliorum alis. *Raii Syn.* 424.

A NATIVE of moist groves, and banks of ditches in shady situations, not unfrequent, flowering in May and June.

Root fibrous, perennial. Plant slender and weak, of a pale whitish green. Stem about a foot high, triangular, and rough upwards, smooth and roundish below, leafy. Leaves long and narrow, rough at their edge. Spikelets alternate, solitary, 6, 8 or more, ovate, androgynous or composed of male and female flowers; 3 or 4 of the lowermost are very distant, and each is accompanied by a very long upright leafy bractea, taller than the top of the stem; the upper spikelets are more approximated, and have very short bracteæ. The male flowers stand below the female in every spikelet. The glumes are ovate, membranous and white at the edge, green at the back, with a keel turning brown as they advance in age. Fruit ovate, pointed, erect, longer than the glumes, roughish at the edge in the upper part, generally entire at the orifice. Seed lentil-shaped. Stigmas two.

C. axillaris of Dr. Goodenough differs in having clustered spikelets and cloven seed-cases. The original *axillaris* of Linnæus is no other than the *remota* adopted from Plukenet, &c.

833
1288.
Carex extensa.

CAREX extensa.

Long-bracteated Carex.

MONOECIA Triandria.

GEN. CHAR. Male, *Catkin* imbricated. *Cal.* of 1 scale *Cor.* none. Female, *Catkin* imbricated. *Cal* of 1 scale. *Cor.* none. *Stigmas* 2 or 3. *Seed* clothed with a swelling tunic.

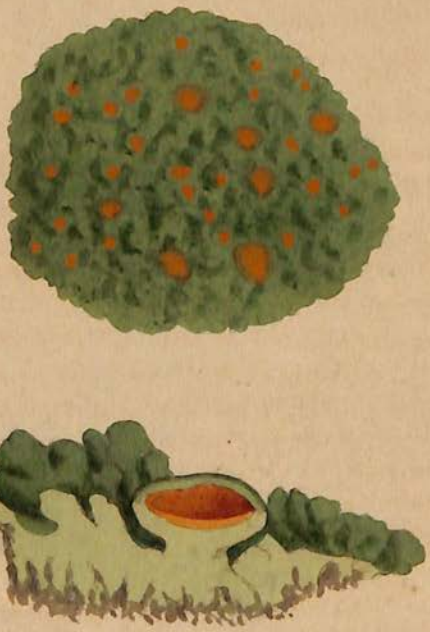
SPEC. CHAR. Bracteæ very long, with very short sheaths and flower-stalks. Female-spikes roundish. Fruit ovate. Stem smooth.

SYN. Carex extensa. *Gooden. Tr. of Linn. Soc. v. 2. 175. t. 21. f. 7. and v. 3. 77. Sm. Fl. Brit. 992. With. 99. Hull. 207.*

Cyperoides echinatum majus. *Dill. in Raii Syn. 421.*

THIS Carex, when first found by the Rev. Mr. Bryant on Cley beach, Norfolk, in 1776, was taken for the *filiformis* of Linnæus. Other specimens were afterwards referred by botanists to the *C. flava*. At length Dr. Goodenough, having examined the plant in a living state in Devonshire and near Harwich, published it by the name of *extensa* as a new species, of the propriety of which there can be no manner of doubt.

The root is fibrous and perennial. Stem upright or curved, various in height, bluntly triangular, perfectly smooth in every part. Leaves narrow, recurved, channelled, rough at the margin towards the point. Bracteæ remarkably long and spreading, often curved, leafy, with very short sheaths. Male spike generally solitary, but sometimes accompanied by a smaller one, lanceolate, bluntish, with now and then a few female flowers in the lower part. Female spikes 2 or 3, short and ovate or globular, rarely cylindrical and elongated, erect, almost sessile. All the glumes broad and three-nerved. Fruit longer than the glumes, ovate, somewhat triangular, scarcely beaked, brownish-green, ribbed, smooth at the edges, and every where destitute of pubescence. Seed triangular, gibbous.



Collema cristatum?

LICHEN crispus.

Crisped gelatinous Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Gelatinous, olive-green, imbricated, orbicular, lobed and notched, with crisped and granulated leaves in the centre. Shields flat, red-brown, scattered.

SYN. Lichen crispus. *Linn. Syst. Nat. ed.* 12. *v.* 2. 710. *Huds.* 535. *With. v.* 4. 76. *Hull.* 301. *Relh.* 427. *Sibth.* 327. *Achar. Prod.* 126.

Lichenoides gelatinosum atrovirens, crispum et rugosum. *Dill. Musc.* 139. *t.* 19. *f.* 23.

OF all the various and intricate tribe of Lichens, the gelatinous species are the most difficult of determination. They all nearly agree in their greenish olive hue, turning almost black when dry, in which state indeed they all for the most part shrivel up into an undistinguishable mass. When moist they are pulpy, tender, often very thick, in some instances so thin as to be membranous.

The *crispus*, though sometimes with difficulty known from luxuriant plants of the *cristatus*, is in general easily to be recognised. It grows in wet shady places under rocks, stones, or walls, assuming a roundish figure, variously imbricated, wrinkled or lobed, though never in its whole substance elevated from the soil. The surface is crowded with irregular blunt leaflets, which towards the centre become lobed, curled, and frequently granulated. The shields are numerous, scattered, with a flat reddish disk (greener when young), and a blunt irregular elevated margin, of the colour and substance of the leaf.

This plant is scarcely to be detected but after a continuance of moist weather.

Juncus conglomeratus.

JUNCUS conglomeratus.

Common Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Stem naked, straight. Panicle lateral, dense and globular. Capsules retuse. Stamina three.

SYN. Juncus conglomeratus. *Linn. Sp. Pl.* 464. *Sm. Fl. Brit.* 376. *Huds.* 148. *With.* 345. *Hull.* 75. *Relh.* 140. *Sibth.* 113. *Abbot.* 78.

J. lævis vulgaris, paniculâ compactiore. *Raii Syn.* 432.

VERY frequent in moist pastures and by road-sides, blossoming in the early part of July, and known at first sight from our other lateral-flowering rushes by its very dense panicle. On a more accurate scrutiny a still more certain mark of distinction will be found in its having only 3 stamina to each flower; a circumstance that rarely, if at all, takes place in *J. effusus*, and never in any other species with which we are acquainted.

The root is horizontal, creeping and perennial. Stems perfectly simple, and destitute of leaves, erect, round, minutely striated, pointed, but not so sharp as to be pungent, about 2 feet high. Panicle bursting from a membranous-bordered fissure about 6 inches below the summit, compound, many-flowered, dense and globular, of a brownish green. Each leaf of the calyx is lanceolate, acute, marked with 2 prominent ribs. Capsule polished, obovate, retuse or abrupt at the top, insomuch as to be sometimes almost three-lobed, internally consisting of a single cell.

It is necessary to correct a mistake in our remark under *J. glaucus*, vol. 10. p. 665. The word *effusus* in the fourth line from the bottom ought to be *conglomeratus*.

Juncus
effusus.

JUNCUS effusus.

Soft Rush.

HEXANDRIA Monogynia.

GEN. CHAR. *Cal.* of 6 leaves, permanent. *Cor.* none. *Caps.* superior, of 3 valves, with 1 or 3 cells. *Seeds* several. *Stigmas* 3.

SPEC. CHAR. Stem naked, straight. Panicle lateral, loose, thrice compounded. Capsules obtuse.

SYN. Juncus effusus. *Linn. Sp. Pl.* 464. *Sm. Fl. Brit.* 376. *Huds.* 148. *With.* 345. *Hull.* 75. *Relh.* 141. *Sibth.* 113. *Abbot.* 78.

J. lævis vulgaris, paniculâ sparsâ, nostras. *Raii Syn.* 432.

EQUALLY common with the last in moist boggy places, flowering in July.

Root perennial, a little creeping. Stem about the height of *J. conglomeratus*, but of a paler hue, and more soft, not at all pungent. Panicle lateral, much branched, loose and spreading, composed of a great multitude of pale-green flowers, whose calyx-leaves are narrow, pointed, 2-ribbed. Stamina 6, very rarely 3 only. Capsule small, obtuse, pale-brown.

The pith of this rush, as well as of *J. conglomeratus*, is used for making wicks to candles that are required to burn without snuffing, though not wanted to show a strong light. The stems are sometimes platted into chair-bottoms, baskets, &c. but are inferior in softness and pliability, as well as in length, to the *Scirpus lacustris*, *t.* 666.

Alisma Plantago.

ALISMA Plantago.

Greater Water-Plantain.

HEXANDRIA Polygynia.

GEN. CHAR. *Cal.* of 3 leaves. *Petals* 3. *Capsules* many, aggregate, generally single-seeded.

SPEC. CHAR. Leaves ovate, acute. Capsules obtusely triangular.

SYN. Alisma Plantago. *Linn. Sp. Pl.* 486. *Sm. Fl. Brit.* 400. *Huds.* 158. *With.* 361. *Hull.* 78. *Relh.* 150. *Sibth.* 120. *Abbot.* 83. *Curt. Lond. fasc.* 5. *t.* 27.

Plantago aquatica. *Raii Syn.* 257.

POOLS and ditches, and sometimes the borders of slow streams, are plentifully adorned with the large branching stems and numerous white or purplish flowers of the Great Water Plantain in the middle of summer.

The root is fibrous and perennial, fixed in the mud under water. Leaves all radical, erect, on long stalks, ovate, acute, entire, ribbed, smooth, various in size and breadth, all standing out of the water. Flower-stalk rising frequently 2 or 3 feet above the surface, composed of numerous, whorled, compound, spreading, bracteated branches. Each flower stands on a partial stalk, erect, composed of three short-lived jagged petals. The germens are compressed, three-sided, ranged in a circle like those of the Mallow tribe, each terminated by a crooked style. The capsules agree in form and position with the germens.

We can find no satisfactory reasons for making the *A. lanceolata* of Withering a distinct species from this, as it seems merely a small variety with narrower leaves. Aquatic plants in general are liable to vary in the breadth of their leaves, witness the *Sagittaria*, *Ranunculus aquatilis*, and some species of *Potamogeton*.

838

543.

Epilobium hirsutum.

EPILOBIUM hirsutum.

Great hairy Willow-herb.

OCTANDRIA Monogynia.

GEN. CHAR. *Cal.* in 4 segments. *Petals* 4. *Caps.* oblong, inferior. *Seeds* feathered.

SPEC. CHAR. Leaves partly embracing the stem, ovato-lanceolate, hairy. Stem much branched. Root creeping.

SYN. Epilobium hirsutum. *Linn. Sp. Pl.* 494. *Sm. Fl. Brit.* 410. *With.* 366. *Hull.* 82. *Relh.* 153. *Sibth.* 122. *Abbot.* 84. *Curt. Lond. fasc.* 2. *t.* 21.

E. ramosum. *Huds.* 162.

Lysimachia siliquosa hirsuta, magno flore. *Raii Syn.* 311.

VERY common in watery places, margins of streams, &c., intermixed with reeds, *Convolvulus sepium*, and willows, flowering in July. Its pink blossoms are conspicuous at some distance, and render it very ornamental. The whole herb is slightly viscid, and when touched exhales a peculiar acid smell, compared to the flavour of codlings and cream.

Root perennial, creeping, by which it is peculiarly distinguished from *E. parviflorum*, *t.* 795. Stems four feet or more in height, leafy, much branched, round, clothed with soft white spreading hairs, as is every part of the herbage. Lower leaves opposite, clasping the stem; the uppermost alternate and sessile; all of a broad-lanceolate figure, pointed, toothed and veiny. Flowers corymbose, each accompanied by a small leaf. Petals inversely heart-shaped, regular, twice as long as the calyx. Germen downy, long.

Sedum acre.

Feb 1. 1801. Published by Jas Sowerby, London.

SEDUM acre.

Biting Stone-crop.

DECANDRIA Pentagynia.

GEN. CHAR. *Cal.* 5-cleft. *Petals* 5, with 5 nectariferous scales at the base of the germen. *Capsules* 5.

SPEC. CHAR. Leaves alternate, somewhat ovate, fleshy, gibbous, fixed to the stem by their inner side above the base. Cyme three-cleft, leafy.

SYN. Sedum acre. *Linn. Sp. Pl.* 619. *Sm. Fl. Brit.* 487. *Huds.* 196. *With.* 427. *Hull.* 99. *Relh.* 174. *Sibth.* 144. *Abbot.* 99. *Curt. Lond. fasc.* 1. *t.* 32. *Woodv. Suppl. t.* 231.

S. parvum acre, flore luteo. *Raii Syn.* 270.

THIS brilliant little flower is conspicuous enough about midsummer, and for some time afterwards, on walls, roofs, and dry barren or sandy ground, which it clothes as it were with a cloth of gold, in defiance of the drought and most scorching sun.

The small fibrous roots are perennial, and spring from the lower part of the tufted and intricate stems, whose branches only grow upright, and are covered with alternate, imbricated, very succulent, smooth, grass-green leaves, which are of an ovate form, protuberant at the back, fixed to the stem not by their base, but by their inner or upper surface a little above it, consequently spurred beneath the insertion, as in *S. reflexum*, *t.* 695. Flowers in small terminal leafy cymes, which are three-cleft when luxuriant only. Calyx of five bluntish smooth segments. Petals ovate, acute. Capsules membranous, pointed, smooth.

The whole herb is acrid, hot and biting to the taste, whence its common name Wall Pepper. Dr. Woodville quotes several authorities to prove its use in scorbutic and scrophulous disorders.

840
1231.

Euphorbia
Cyparissias.

Pub. 1 Jan. 1801, by Jas. Sowerby, London.

EUPHORBIA Cyparissias.

Cypress Spurge.

DODECANDRIA Trigynia.

GEN. CHAR. *Cal.* of one leaf, inflated, inferior. *Nectaries* 4 or 5, standing on the calyx. *Capsule* stalked, 3-lobed.

SPEC. CHAR. Umbel of many dichotomous rays, Partial involucra somewhat heart-shaped. Stem-leaves lanceolate; those on the side branches very narrow.

SYN. Euphorbia Cyparissias. *Linn. Sp. Pl.* 661. *Sm. Fl. Brit.* 519. *With.* 451. *Sym.* 117. *Hull.* 106.

THIS *Euphorbia* was first introduced to the knowledge of the British botanist by Dr. Withering, who mentions it as growing wild in Lord Stamford's woods in Staffordshire. Our specimen confirms his assertion, having been gathered by the Rev. Mr. Abbot in Barton Leat Wood, Bedfordshire, in August 1799.

The root creeps to a considerable extent, but not very rapidly. Stems about a foot high, round, smooth, leafy, furnished with several alternate, upright, lateral, very leafy branches. Leaves entire, linear, scattered; those on the main stem broader and almost lanceolate; the rest very narrow, almost setaceous. Umbel of from 7 to 15 rays, which are forked repeatedly, and a few shorter axillary rays are scattered down the stem, as in many other species. General involucre of several broad lanceolate leaves; partial, of broader yellowish smooth heart-shaped ones. Nectaries four, yellow, crescent-shaped, a little pointed. Capsule smooth; Roth in his excellent *Flora Germanica* mentions it as being sometimes tuberculated.

The involucella, and even the leaves, frequently assume a bright saffron or vermilion hue in autumn, exactly like that of the wild Box-tree, a plant of the same natural order.

Prunus insititia.

Pub. 1 Mar. 1821 Published by Sir Stanley

PRUNUS insititia.

Wild Bullace-tree.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Flower-stalks in pairs. Leaves lanceolate-ovate, revolute when young, downy beneath. Branches ending in a spine.

SYN. Prunus insititia. *Linn. Sp. Pl.* 680. *Sm. Fl. Brit.* 528. *With.* 456. *Hull.* 108. *Relh.* 188. *Sibth.* 154. *Abbot.* 107.

P. sylvestris major. *Raii Syn.* 462.

FOUND not unfrequently in hedges and woody places, growing to the size of a small tree, and covered with blossoms in April, when the leaves are beginning to expand.

The branches spread in various directions, and are round, stiff, clothed with a reddish rather glaucous bark, and terminating for the most part in a strong sharp thorn. Leaves alternate, on footstalks, ovate, tapering toward each end, serrated, veiny, downy beneath, coming forth at first with the edges coiled backward, not folded flatly together. Scales of the buds imbricated, concave, entire, brown, the innermost fringed, and greenish. Flowers from different buds, in pairs, on simple shortish stalks. Calyx smooth, entire, but little spreading. Petals obovate, large, white. Stamina numerous. Stigma capitate. Fruit globular, black with a blue bloom, sour and austere, scarcely eatable in a crude state.

The more grateful white bullace differs from this only as the white currant or white elder differ from the common wild kinds of each. The red austere plum, mentioned by Ray as growing in Essex, must have been either a variety of this, or some stray plant of the garden *P. domestica.*

Prunus spinosa.

Pub. 1 May 1841 Published by Sir Sowerby, London.

PRUNUS spinosa.

Sloe-tree, or Black-thorn.

ICOSANDRIA Monogynia.

GEN. CHAR. *Cal.* 5-cleft, inferior. *Pet.* 5. *Stone* of the *drupa* with slightly prominent seams.

SPEC. CHAR. Flower-stalks solitary. Leaves lanceolate, smooth. Branches ending in a spine.

SYN. Prunus spinosa. *Linn. Sp. Pl.* 681. *Sm. Fl. Brit.* 528. *Huds.* 212. *With.* 457. *Hull.* 108. *Relh.* 189. *Sibth.* 155. *Abbot.* 108. *Woodv. Med. Bot. t.* 84.

P. sylvestris. *Raii Syn.* 462.

COMMON in every hedge and thicket, where its blossoms are very conspicuous in March or April, and are one of the earliest harbingers of spring. They generally cover the branches in great profusion before any leaves appear.

This shrub is naturally low and depressed, formed of spreading hard rigid and thorny branches, clothed with a black rather glaucous bark. Leaves on stalks, lanceolate, or inversely ovate, (at least the earlier ones,) serrated, smooth, dark-green. Scales of the buds much like those of the last. Flowers solitary, each on a short stalk, from a small bud at the base of each leaf-bud. Calyx spreading. Petals white, roundish. Fruit globular, black, very austere and not eatable raw, though it may be made palatable by being prepared with a great quantity of sugar. Its expressed juice inspissated over a slow fire is a substitute for the Egyptian Acacia, and not an unuseful astringent medicine. The recent fruit is one of the many articles used to adulterate port wine in England. The dried leaves are said to be a substitute for tea, and are perhaps often mixed with it in this country. They may be one cause of its proving sometimes pernicious; for the green parts of all the plum and cherry tribe are highly poisonous, and it is fortunate if they act merely as a purgative.

Sonchus
oleraceus.

SONCHUS oleraceus.

Common Sow-thistle.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Receptacle* naked. *Cal.* imbricated, swelling at the base. *Down* simple, sessile.

SPEC. CHAR. Flower-stalks cottony. Calyx smooth. Leaves runcinate, toothed.

SYN. Sonchus oleraceus. *Linn. Sp. Pl.* 1116. *Sm. Fl. Brit.* 818. *Huds.* 336. *With.* 675. *Hull.* 177. *Relh.* 291. *Sibth.* 237. *Abbot.* 169. *Curt. Lond. fasc.* 2. *t.* 58.

Sonchus n. 1—6. *Raii Syn.* 162, 163.

ONE of the most common of all weeds in every kind of cultivated land; and like such vagrant annuals it assumes a variety of forms according to the variations of soil and moisture. The flowers are to be met with from midsummer to the end of autumn.

The root is spindle-shaped and annual. Herb brittle, milky, destitute of pubescence, except the young flower-stalks, which bear a soft white cottony web that soon falls off. Stem round, branched, glaucous. Leaves runcinate, fringed with little bristly teeth; their base clasping the stem. Flower-stalks axillary and terminal, forming cymes, smooth except in a young state. Calyx smooth, glaucous, at first cylindrical and blunt, but soon swelling out very much at the base. Corolla yellow, closed at night or in bad weather. Seeds obovate, angular and striated. Down smooth, very white and silky. Receptacle dotted.

844.
1104.

Lapsana communis.

LAPSANA communis.

Nipple-wort.

SYNGENESIA Polygamia-æqualis.

GEN. CHAR. *Receptacle* naked. *Cal.* scaly at the base; its inner leaves equal, channelled. *Seeds* without wing or down.

SPEC. CHAR. Calyx when in fruit angular. Stem panicled. Flower-stalks thread-shaped.

SYN. Lapsana communis. *Linn. Sp. Pl.* 1141. *Sm. Fl. Brit.* 842. *Huds.* 347. *With.* 693. *Hull.* 178. *Relh.* 301. *Sibth.* 242. *Abbot.* 173. *Curt. Lond. fasc.* 1. *t.* 59. *Dicks. H. Sicc. fasc.* 11, 12.

Lampsana. *Raii Syn.* 173.

FREQUENT in waste as well as cultivated ground, and sometimes a troublesome weed, as the seeds lie long in the earth, springing up from time to time occasionally, like those of poppies. It flowers in June or July.

Root annual, fibrous. Stem upright, near three feet high, roundish, furrowed, panicled, leafy, scarcely rough or hairy. Leaves soft and flaccid, a little hairy, slightly toothed; the radical ones lyrate; the rest ovate, alternate, pointed. Flower-stalks alternate, erect, round, slender, smooth, with a little pointed bractea at the base of each. Flowers smaller than in most of our Syngenesious plants, bright-yellow. Calyx smooth, hard, rigid, permanent, and closed about the seeds, which are few, angular, entirely destitute of down or feather of any kind.

The English name originates in an old report, of Prussian origin and perhaps little to be trusted, that the herb cures sore breasts. See Gerarde's Herbal.

Lecidea vernalis.

Feb. 1. 1801. Published by Jas. Sowerby, London.

LICHEN vernalis.

Vernal Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles in which the seeds are imbedded.

SPEC. CHAR. Crust thin, powdery, whitish-green. Shields at length almost globose, clustered, of a brown or rusty flesh-colour.

SYN. Lichen vernalis. *Linn. Syst. Nat. ed.* 12. *v.* 3. 234. *Achar. Prod.* 51. *Lightf.* 805. *With. v.* 4. 14. *Hull.* 288. *Relh.* 423.

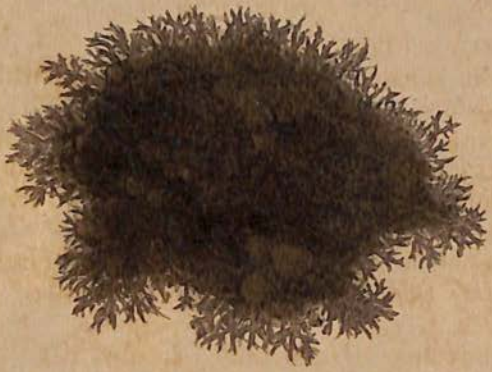
L. sphæroides. *Dicks. Crypt. fasc.* 1. 9. *t.* 2. *f.* 2. *With. v.* 4. 15. *Hull.* 288.

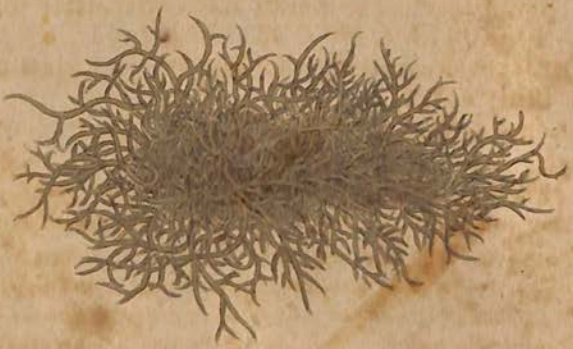
Verrucaria rubella. *Hoffm. Fl. Germ. v.* 2. 174.

NOT unfrequent on the barks of trees, or on mosses in low damp places.

The crust is irregular, thin, powdery or granulated, of a pale dull olive hue, whiter when dry. Shields when very young flattish, with a thick border of their own colour, which however is soon obliterated, and the disk becomes very convex, almost globose, often lobed, generally of a pale rusty hue, verging towards a flesh-colour, but more frequently of the colour of yellow ochre, and often brown. These tubercles (for so they are in a full grown state) are of different magnitudes, to the size of a moderate pin's head, and variously clustered together.

Mr. Hudson has caused great confusion by transcribing the Linnæan character of this *Lichen* for his *ferrugineus*, which is a very different species, the *crenularius* of Withering, and figured twice by Hoffmann, *Pl. Lich. t.* 12. *f.* 1, and *t.* 35. *f.* 1. We cannot but agree with Dr. Acharius, that Mr. Dickson's *L. sphæroides* is merely a variety of *vernalis* with rather more protuberant shields; and indeed Mr. D. Turner and myself had, from the consideration of several original specimens, previously formed the same conclusion, and fixed the above synonyms.





Cornicularia lanata?

LICHEN lanatus.

Black Woolly Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Shrubby, filamentous, much branched, intricate, round, solid, smoothish, brownish black. Shields of the same colour, flat, with an irregularly toothed margin.

SYN. Lichen lanatus. *Linn. Sp. Pl.* 1623. *Huds.* 562. *Lightf.* 892. *Achar. Prod.* 216. *Schrad. Spicil.* 100. *t.* 1. *f.* 6.
L. pubescens. *Huds.* 562. *Lightf.* 893.
Usnea lanæ nigræ instar saxis adhærens. *Dill. Musc.* 66. *t.* 13. *f.* 8. et U. cæspitosa exilis capillacea atra. *ib. f.* 9. etiam Coralloides tenuissimum nigricans, mundi muliebris instar textum. *Ejusd.* 113. *t.* 17. *f.* 32.
Muscus coralloides, lanæ nigræ instar saxis adhærens. *Dill. in Raii Syn.* 65.

A NATIVE of the high micaceous mountains of Scotland and the north of England. It grows in dense elastic patches creeping over the rocks. The stem and branches are very intricate, repeatedly subdivided, unequal, roundish, solid, more or less polished, of a dark olive brown, almost black, especially when dry. Shields rarely produced, (sent us by Mr. J. Mackay,) a little elevated, irregular, flattish, polished, rather blacker than the frond, surrounded with an unequally toothed or spinous margin.

It is quite distinct from the *L. chalybeiformis*, and belongs indeed to a different family of the genus. When destitute of fructification it is larger, more luxuriant, and somewhat paler, and is then the *lanatus* of most authors; when in a fruit-bearing state, as in our figure, it is smaller, and generally taken for *pubescens*; but we readily agree with Dr. Acharius that the real *pubescens* (of *Fl. Suecica* at least) is Lightfoot's *exilis*, and, we beg leave to add, the *scaber* of Hudson.

847

2372

Laurencia dasyphylla

FUCUS dasyphyllus.

Thick-leaved Fucus.

CRYPTOGAMIA Algæ.

GEN. CHAR. *Seeds* produced in clustered tubercles, which burst at their summits.

SPEC. CHAR. Stem round, branched. Branches thread-shaped, generally simple. Leaves scattered, cylindrical, obtuse, tapering at the base.

SYN. Fucus dasyphyllus. *Woodw. in Tr. of Linn. Soc. v. 2. 239. t. 23. f. 1—3. v. 3. 119. With. v. 4. 112. Hull. 316.*

MR. LILY WIGG of Yarmouth, so eminently skilful in detecting, as well as in preserving, specimens of marine *algæ*, appears to have been the original discoverer of this plant on the beach near that town, where it has been several times found washed up by the tide, and from whence Mr. D. Turner communicated our specimen. The plant has been seen growing at Cromer by Mr. Woodward, to whom we are obliged for the only original accounts of this species hitherto published.

The stem is fixed by a slender base to the rocks or stones, and is round, succulent, scarcely a span high, furnished from the very bottom with several irregularly scattered branches of the same cylindrical figure, tapering at their insertion as well as towards their points; the lowermost generally subdivided; the rest simple. Leaves very irregularly scattered, obovate, or rather cylindrical and blunt, with a very taper base. The general colour is a pale red, often verging towards a green. The fructification consists of dark-red clusters of seeds, either scattered over the branches, as in Mr. Woodward's figure, or lodged toward the extremities of the leaves, as in ours.

Alopecurus agrestis.

ALOPECURUS agrestis.

Slender Fox-tail-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 2 valves, containing a single floret. *Cor.* of 1 valve.

SPEC. CHAR. Stem erect, roughish. Spike perfectly simple, taper. Glumes of the calyx nearly naked, united at their base, dilated at the keel.

SYN. Alopecurus agrestis. *Linn. Sp. Pl.* 89. *Sm. Fl. Brit.* 73. *Huds.* 27. *With.* 119. *Hull.* 16. *Relh.* 24. *Sibth.* 35. *Abbot.* 12. *Mart. Fl. Rust. t.* 22.

A. myosuroides. *Curt. Lond. fasc.* 2. *t.* 7.

Gramen myosuroides n. 1 et 2. *Raii Syn.* 397.

A NATIVE of corn-fields and waste ground, flowering in July, and the root is annual.

This grass differs very materially from the Meadow Fox-tail figured in our 759th plate; for as that by its perennial duration, situation in meadows and pastures, and excellent qualities for fodder, may be esteemed one of the most valuable, this on the contrary is rather to be reckoned a weed, exhausting the strength of arable land to no purpose; for, whether it might be acceptable to cattle or not, it cannot be collected for their use, nor has any person yet thought of cultivating it as a crop.

The root is small and fibrous. Stems several, about a foot and half high, erect, leafy, roughish to the touch, though scarcely to the sight, in the upper part. Leaves pale-green, rough on the upper side, with an oblong downy stipula. Spike near 3 inches long, very slender and tapering, perfectly simple, not branched, often of a purplish hue. Calyx-glumes united at their base, a little downy at the edge, but not so much fringed as in *A. pratensis*; their keel dilated. Corolla smooth, with an awn from its base.

The n. 2. of Ray appears from Buddle's Herbarium to be merely a starved brown variety, from a barren soil.

PANICUM sanguinale.

Cock's-foot Panick-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 3 valves, single-flowered; the third valve very small. *Seed* invested with the permanent hardened corolla.

SPEC. CHAR. Spikes finger-like, knotty at the base on the inside. Flowers in pairs, beardless. Sheaths of the leaves dotted.

SYN. Panicum sanguinale. *Linn. Sp. Pl.* 84. *Sm. Fl. Brit.* 66. *Huds.* 25. *With.* 115. *Hull.* 15. *Curt. Lond. fasc.* 4. *t.* 7. *Mart. Fl. Rust. t.* 78. Gramen dactylon, latiore folio. *Raii Syn.* 399.

NONE of the places of growth of this grass mentioned by British writers is, we believe, so constantly to be depended on as Battersea fields, from whence our specimens were collected. In other parts of the kingdom it occurs but sparingly or occasionally, as must always be the case with such annuals (especially grasses) as grow only in a rich manured soil.

The root is fibrous and annual, and the flowers are to be seen from July to the end of autumn. Stems numerous, bent and decumbent at their base, spreading widely upwards, in length from 12 to 18 inches, smooth. Leaves broad, nearly smooth, generally shorter than their sheaths, which are striated, and frequently (but not invariably) hairy, each hair springing from a small cartilaginous puncture, but all the punctures do not always produce hairs. Spikes umbellate, or a little distant, spreading, linear, their stalks zigzag, winged, often swelled or knotty at the base. Flowers in alternate pairs leaning one way, of a dull violet hue. Calyx of 3 very unequal ribbed valves, of which the smallest is often abortive. Corolla of 2 concave valves, which become quite horny as the seed ripens. Antheræ and stigmas dark-purple.

It is a hard coarse grass, of no agricultural use.

Cynodon Dactylon.

March 1st 1804 Published by Jas Sowerby London

PANICUM dactylon.
Creeping Panick-grass.

TRIANDRIA Digynia.

GEN. CHAR. *Cal.* of 3 valves, single-flowered; the third valve very small. *Seed* invested with the permanent hardened corolla.

SPEC. CHAR. Spikes finger-like, hairy at the base on the inside. Flowers solitary. Calyx of two nearly equal valves, contrary to the corolla. Shoots creeping.

SYN. Panicum dactylon. *Linn. Sp. Pl.* 85. *Sm. Fl. Brit.* 67. *Huds.* 25. *With.* 116. *t.* 21. *Hull.* 15. *Dicks. Dr. Pl.* 53. *H. Sicc. fasc.* 11. 1.

Gramen repens, cum paniculâ graminis Mannæ. *Raii Syn.* 399.

MR. NEWTON is handed down by Ray as the discoverer of this curious species of *Panicum* on the sandy shores between Penzance and Marketjeu, Cornwall, where it has grown copiously ever since. We are indebted to Dr. Pennick of Penzance for wild specimens. It has never been observed in any other part of Great Britain. In the north of Italy it is common in the streets of several towns.

This grass flowers in July and August, or later. The strong perennial roots are formed of hard polished runners situated horizontally in the sand, and throwing out from each joint a cluster of smooth fibres, not downy as in most grasses that inhabit loose sand. These runners are for the most part clothed with the permanent bases of the leaves, which are alternate, rigid, sharp-pointed and hairy. Stipula a tuft of hairs. Stems a span high, leafy, terminated by a cluster of 3 or 4 linear purplish umbellate spikes, whose stalks are zigzag, angular, but not winged. Flowers solitary, leaning one way. Calyx of 2 valves only; but the strict affinity between this species and *P. sanguinale* forbids us to follow Jussieu and others in making it a separate genus. Corolla certainly of 2 valves, not of one only as described by Jussieu. Those valves being contrary, not opposite, to the calyx, might go further to establish a generic character than any hitherto noticed.

Rubia peregrina.

RUBIA peregrina.

Wild Madder.

TETRANDRIA Monogynia.

GEN. CHAR. *Cor.* of one petal, bell-shaped, superior. *Berries* 2, each with a single seed.

SPEC. CHAR. Leaves about four in a whorl, elliptical; shining and smooth on their upper side. Flowers five-cleft.

SYN. Rubia peregrina. *Linn. Sp. Pl.* 158. *Sm. Fl. Brit.* 181. *Huds.* 65.

R. tinctorum. *With.* 193. *Hull.* 35.

R. sylvestris aspera, quæ sylvestris Dioscoridis. *Raii Syn.* 223.

THE Wild Madder is not unfrequent in South Wales, Cornwall, Devonshire, St. Vincent's rocks Bristol, and some few other places in the south-west part of England. It grows among bushes on a rich or loamy soil, flowering in July, and ripening its berries rather late in the autumn.

Roots perennial, creeping, their inner bark red or orange-coloured, having the property of dyeing red like the *R. tinctorum*, from which however this species is most decidedly distinct, and from which it may be known by the smooth (though finely granulated) upper surface of its leaves. The herb in mild winters is ever-green. Stems branched, square, prickly, brittle, and, when not supported, procumbent. Leaves rigid, four (rarely five or six) in a whorl, reflexed, shining, elliptical, broader and less pointed than those of *R. tinctorum*, very rough with little hooked prickles on the margin and nerve. Panicles forked, terminal. Calyx none. Corolla almost universally 5-cleft, with 5 stamina, yellowish green, concave, but shallow. Germen smooth. Berries in pairs, deep-black; one of them often abortive.

852.
638.

Arenaria rubra.

ARENARIA rubra.

Purple Sandwort.

DECANDRIA Trigynia.

GEN. CHAR. *Cal.* 5-leaved, spreading. *Petals* 5, undivided. *Capsule* superior, of 1 cell, with many seeds.

SPEC. CHAR. Leaves linear, tipped with a small bristle. Stipulæ membranous, sheathing. Seeds compressed, angular, roughish.

SYN. Arenaria rubra. *Linn. Sp. Pl.* 606. *Sm. Fl. Brit.* 479. *Huds.* 192. *With.* 422. *Hull.* 96. *Relh.* 172. *Sibth.* 142. *Abbot.* 98.

Spergula purpurea. *Raii Syn.* 351.

THIS species of *Arenaria* is one of the most common in dry sandy fields, spreading widely on the ground, and flowering in July and August; but the blossoms expand only in bright weather, when their beauty and brilliancy will be found worthy of an accurate examination.

Root small, spindle-shaped, branched, annual. Stems prostrate, branched, spreading in a circular form, flaccid, leafy, round, smooth, a little tumid at their joints. Leaves flat, linear, narrow, pointed, entire, tipped with a small bristle, glaucous or rather hoary, somewhat succulent, nearly the length of each corresponding joint of the stem, and connected at their base by a pair of white membranous cloven stipulæ. Panicles terminal, leafy, forked, their terminations racemose; their flower-stalks downy and viscid. Calyx of 5 hairy leaves, without ribs, their margin membranous. Petals generally shorter than the calyx. Capsule equal to the calyx, ovate, of 3 valves. Seeds numerous, pale-brown, compressed, of an angular and somewhat wedge-like figure, rough on their outer edge with little sharp tubercles. By the figure of the seeds and the bristles that terminate the leaves, this plant is distinguished from *A. marina* and its varieties, which we hope on some future occasion to illustrate.

Glechoma hederacea.

GLECHOMA hederacea.

Ground-Ivy.

DIDYNAMIA Gymnospermia.

GEN. CHAR. *Cal.* 5-cleft, nearly regular. *Antheræ* approaching each other in pairs forming a cross.

SPEC. CHAR. Leaves kidney-shaped, crenate.

SYN. Glechoma hederacea. *Linn. Sp. Pl.* 807. *Sm. Fl. Brit.* 625. *Huds.* 254. *With.* 526. *Hull.* 125. *Relh.* 225. *Sibth.* 183. *Abbot.* 128. *Curt. Lond. fasc.* 2. *t.* 44. *Mart. Fl. Rust. t.* 61. *Woodv. Med. Bot. t.* 28.

Calamintha humilior, folio rotundiore. *Raii Syn.* 243.

GROUND-IVY, Gill, or Alehoof, for it is vulgarly known by all those names, is a very common plant in dry groves, about hedge-banks, under park walls or pales, and similar situations, where it puts forth its fragrant foliage on the first approach of spring, and flowers in April and May.

The roots are perennial and creeping, throwing out running scions, which also take root to a great extent, and several weak square stems. Leaves on foot-stalks, kidney or heart-shaped, truly crenate (of which kind of margin they are a good example), veiny, downy, dotted beneath with glandular points, from which, as Dr. Withering justly observes, the odoriferous oil of the plant proceeds. Flowers axillary, about 3 to each leaf, on short stalks. Calyx tubular, striated, nearly equally 5-cleft. Corolla blueish; its under lip largest, in 4 broad lobes, and prettily marked with dark-purple and white. Antheræ cohering in cross-like pairs, often abortive, as in other creeping-rooted plants, nor are the seeds often to be found perfect.

The herb has been used to give ale a flavour by infusion, but is more generally taken in the manner of tea, and is sometimes sold about the streets. A very humble poet on the London Cries has said

> "———— did ye but know the taste
> Of home-found ivy, ye would ne'er explore
> For foreign shrubs a distant Indian shore."

Scrophularia aquatica.

SCROPHULARIA aquatica.

Water Figwort.

DIDYNAMIA Angiospermia.

GEN. CHAR. *Cal.* 5-cleft. *Cor.* somewhat globose, reversed. *Caps.* superior, 2-celled.

SPEC. CHAR. Leaves heart-shaped, on foot-stalks, decurrent, blunt. Stem winged.

SYN. Scrophularia aquatica. *Linn. Sp. Pl.* 864. *Sm. Fl. Brit.* 663. *Huds.* 275. *With.* 554. *Hull.* 138. *Relh.* 244. *Sibth.* 196. *Abbot.* 138. *Curt. Lond. fasc.* 5. *t.* 44.

S. aquatica major. *Raii Syn.* *283.

A NATIVE of watery places, as alder-swamps, margins of pools and rivers, &c. not uncommon in England, though very rare in Scotland. It is perennial, and flowers after midsummer.

Root fibrous, not knotty as in the upland *S. nodosa.* Stem upright, straight, and nearly simple, 3 or 4 feet high, square, very smooth, winged, leafy. Leaves opposite, stalked, ovate or elliptical, blunt, serrated, smooth; heart-shaped at the base, and running down a little upon the edges of the foot-stalk. Flowers in small forked panicles, oppositely compounded into a long leafless (though bracteated) racemus. Calyx smooth, deeply five-cleft. Corolla with a greenish inflated tube; its lower lip, which from the flower being reversed is turned uppermost, of a dull dark blood-colour, and furnished with a small intermediate lobe within the other two. Capsule roundish, a little depressed, pointed, the inflexed edges of its valves dividing it into 2 cells. Seeds numerous.

The whole plant is fœtid when bruised. Its old name of Water Betony arose merely from the slight resemblance of its leaves in form to those of *Betonica officinalis.*

935.

Nasturtium officinale.

SISYMBRIUM Nasturtium.

Water Cress.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Pod* cylindrical, bursting with nearly straight valves. *Cal.* and *Cor.* spreading.

SPEC. CHAR. Pods declining. Leaves pinnate: leaflets roundish heart-shaped.

SYN. Sisymbrium Nasturtium. *Linn. Sp. Pl.* 916. *Sm. Fl. Brit.* 700. *Huds.* 296. *With.* 580. *Hull.* 150. *Relh.* 256. *Sibth.* 206. *Abbot.* 143. *Curt. Lond. fasc.* 6. *t.* 44. *Woodv. Med. Bot. t.* 48.

S. Cardamine, seu Nasturtium aquaticum. *Raii Syn.* 300.

VERY abundant in clear springs, rivulets and ponds, generally supported on the surface by its floating leaves, but often rising above it, especially when the flowers appear, in June and July.

The roots are perennial, consisting of long white fibres, the lowermost fixed in the soil, the rest suspended in the water. Stems spreading, declining or floating, angular, branched, leafy. Leaves alternate, pinnate, somewhat lyrate (the terminal and upper leaflets being the largest); all the leaflets roundish, more or less heart-shaped, smooth, shining, waved or toothed, frequently tinged with a purplish-brown hue. Flowers white, in a corymbus, soon lengthened out into a spike. Pods shortish, standing on horizontal fruit-stalks, but the pods themselves are recurved upwards. Stigma nearly sessile.

The flavour of the young leaves is pleasantly warm and pungent, something like that of mustard, and agreeable to most people. No British plant is so generally used as a salad. Its expressed juice, combined with those of Brooklime and Scurvy-grass, forms a popular medicine for purifying the blood, as we have already mentioned, vol. 10. p. 655.

Raphanus
Raphanistrum.

RAPHANUS Raphanistrum.

Wild Radish, or Jointed Charlock.

TETRADYNAMIA Siliquosa.

GEN. CHAR. *Cal.* closed. *Nectariferous glands* 4. *Pod* cylindrical, swelling out into knobs, seeming jointed.

SPEC. CHAR. Pods jointed, smooth, of one cell.

SYN. Raphanus Raphanistrum. *Linn. Sp. Pl.* 935. *Sm. Fl. Brit.* 723. *Huds.* 289. *With.* 596. *Hull.* 146. *Relh.* 252. *Sibth.* 203. *Abbot.* 147. *Curt. Lond. fasc.* 4. *t.* 46. *Mart. Fl. Rust. t.* 71.

Raphanistrum siliquâ articulatâ glabrâ, majore et minore. *Raii Syn.* 296.

ONE of the most troublesome weeds in corn-fields, where its pale yellow or whitish flowers are conspicuous in June and July.

Root annual, spindle-shaped. Stem branching, round, glaucous, rough with prominent bristles, leafy. Leaves lyrate, toothed, rough: the uppermost simple, oblong. Flowers larger than in most of our cruciform plants. Calyx slender, bristly upwards. Petals lemon-coloured, streaked with veins which become dark purple as the flower advances in age, and at length very striking, as the lemon ground turns quite white. The pods are erect, tapering, beaked, smooth, knobbed, or seemingly jointed, as they ripen, and longitudinally furrowed when dry. When very young they are divided into 2 longitudinal cells, but the partition is obliterated, and confounded in one spongy mass, as they grow to maturity. Seeds compressed.

The *Raphanus* n. 3 of *Raii Syn.* (*Fl. Brit.* γ), is a large maritime biennial or perhaps perennial plant, which I had not seen when the 2d vol. of *Fl. Brit.* was printed. Mr. Mackay, who has lately sent it from Scotland, is persuaded of its being a distinct species. This merits further examination.

The idea of Linnæus that the seeds of this plant caused the convulsive disease named by him *Raphania*, see *Am. Acad. v.* 6, is not confirmed by experience.

857
2106

Lecanora Turneri

March. 1. 1801. Published by Jas. Sowerby, London.

LICHEN Turneri.

Mealy Flesh-coloured Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leprous, very mealy, greenish-white. Shields flesh-coloured, powdery, with a very thick, rounded, entire, mealy margin, of the colour of the crust.

SYN.....

WE have not been able to refer this *Lichen* to any mentionedin Dr. Acharius's classical work; and presuming it therefore to be nondescript, have named it in honour of Mr. Dawson Turner, to whom we are obliged for it, and whose labours in the investigation of the whole genus have well entitled him to such a distinction.

There is reason to believe that the crust is not unfrequent on the barks of old oaks and other trees, forming an unequal, indeterminate, soft, powdery substance, of a grayish white when dry, greenish in a moist state, which may easily be overlooked for *L. fagineus*, and as few species are more rare in fruit, the shields have escaped notice. When they occur, however, they are too elegant and conspicuous to be confounded with any others. They are a little elevated; their disk flat, powdery, flesh coloured, almost orange when young, and at all times of a deeper hue within. They are encompassed by a thick, rounded, prominent, undivided border, of the colour and substance of the crust.

The figure of Wulfen's *L. albo-flavescens*, *Jacq. Coll. v.* 3. 111. *t.* 5. *f.* 1, bears some resemblance to this plant; but the crust is described as "compact, even, firmly adhering to the bark, set with warty tubercles, smooth and white," all which is foreign to our *L. Turneri*, which is remarkable for its soft mealiness, and which indeed nearer approaches *L. Hæmatomma**, *Engl. Bot. t.* 486; but the crust of that is less mealy, whiter, more uniform, and the shields smaller, much more numerous, less prominent, with a perfectly smooth, waxy disk, of a more vivid red.

* We are now convinced the original *Hæmatomma* of Ehrhart is our *coccineus*, *t.* 223.

858
2166

Parmelia aleurites.

March 1, 1841. Published by Pat. Syme, 69, London.

LICHEN aleurites.

Mealy Spreading Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.

Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Membranous, imbricated, spreading, rugged, grayish-white, mealy; beneath gray and fibrous; the segments lobed, crisped and notched. Shields elevated, reddish-brown, with a white, notched, narrow border.

SYN. Lichen aleurites. *Achar. Prodr.* 117.

L. diffusus. *Dicks. Crypt. fasc.* 3. 17. *t.* 9. *f.* 6. *With. v.* 4. 32. *Hull.* 294.

Lobaria diffusa. *Hoffm. Fl. Germ. v.* 2. 156.

THE present *Lichen* was discovered in England by Mr. Dickson on the park pales of Croft Castle, Herefordshire, a classical spot for botany, since Dillenius has so often mentioned it. Mr. D. Turner afterwards met with the same on Lord Rous's pales at Henham, Suffolk; and Dr. G. H. Noehden found near Windsor the fine specimen here delineated. We are obliged to resign the name of *diffusus*, the plant so called originally by Weber appearing, by authentic German specimens, to be a very different species.

The fronds spread rather loosely over old dead wood, attached by small fibres, somewhat imbricated. Their substance is thin; their surface mealy, rugged, of a pale brownish or yellowish gray; their margin lobed, laxly elevated, crenate, smooth. The centre of the plant in time becomes a congeries of powdery lumps and swellings, without any leafy appearance. The shields are of various sizes, round when young, afterwards irregular, and frequently lobed, elevated on considerable stalks; their disk flat, smooth, of a rusty or chesnut brown; their margin narrow, a little elevated, white, irregularly notched, inflexed.

Evernia prunastri

LICHEN prunastri.

Ragged hoary Lichen.

CRYPTOGAMIA Algæ.

GEN. CHAR. Male, scattered warts.
Female, smooth shields or tubercles, in which the seeds are imbedded.

SPEC. CHAR. Leafy, much-branched, upright, leathery, soft, greenish-white, pitted and rugged; very white beneath; the segments linear, flat, acute. Shields lateral, concave, bright-brown.

SYN. Lichen prunastri. *Linn. Sp. Pl.* 1614. *Achar. Prodr.* 174. *Huds.* 541 β? *With. v.* 4. 52. *Hull.* 296.
L. corniculatus. *Relh.* 433.
Lichenoides cornutum bronchiale molle, subtus incanum. *Dill. Musc.* 160. *t.* 21. *f.* 55 A.

FEW botanists have well understood the tribe of leafy or flat branched Lichens to which the present species belongs; indeed Dr. Acharius, in his *Prodromus* and in the Stockholm Transactions, is the first who has clearly illustrated their Proteus-like forms. We agree with him that this is the real *prunastri*, with which almost all writers have confounded some others that are distinct from it, apparently from being ignorant of the fructification, which even Dillenius never knew. It was first found in England by the late Rev. Mr. Bryant, and consists of large chesnut shields with an entire white edge, entirely different from the shields of the common Lichens that have been confounded with this, and which we shall take an opportunity of illustrating when we have settled them all by communication of original specimens with Dr. Acharius. In the mean time the *prunastri*, which is common on the branches of old trees, may easily be known without its fructification, (which is very rare, and which we received from Mr. Templeton and Mr. Salt), by its soft and pliable texture, and diffuse much-branched form. Mr. Relhan rightly distinguished it from what he then thought *prunastri*, by the name of *corniculatus*.

POTERIUM Sanguisorba.

Common Burnet.

MONOECIA Polyandria.

GEN. CHAR. Male, *Cal.* 3-leaved. *Cor.* 4-cleft. *Stam.* 30 to 40.

Female, *Cal.* 3-leaved. *Cor.* 4-cleft. *Pist.* 1 or 2. *Nut* of 2 cells, clothed with the hardened tube of the corolla.

SPEC. CHAR. Thorns none. Stem somewhat angular.

SYN. Poterium Sanguisorba. *Linn. Sp. Pl.* 1411. *Huds.* 421. *With.* 493. *Hull.* 212. *Relh.* 362. *Sibth.* 168. *Abbot.* 209. *Curt. Lond. fasc.* 2. *t.* 64. *Mart. Fl. Rust. t.* 69.

Sanguisorba minor. *Raii Syn.* 203.

A NATIVE of dry chalk or limestone hills, where it generally grows in great plenty, and flowers in July.

The root is strong, woody and perennial. Stems upright, branched, various in height, more or less angular, leafy, smooth. Leaves pinnated, with round neatly-serrated leaflets, veiny, smooth but not shining, having a glaucous hue. Flowers in round heads on long upright terminal stalks, the males in the lower part, the females above, which is unusual. Sometimes a few barren hermaphrodite blossoms stand among them. Calyx of 3 (not 4) leaves. Corolla green, tubular, 4-cleft, esteemed by Jussieu and Gærtner as the real calyx, perhaps not improperly, considering the analogy of the Icosandrous plants. Stamina numerous, hanging elegantly like a tassel of purple silk out of the flower, and tipped with yellow antheræ. Germens in the superior flowers, 1 or 2, each of 2 cells, and crowned by a long style with a beautifully-radiated purple stigma. Fruit an angular rugged nut, invested with the tube of the corolla, and containing 2 seeds.

The leaves taste and smell like cucumber, and are used to give that flavour to sallads.

Potentilla anserina.

POTENTILLA anserina.

Silver-weed, or Wild Tansey.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 segments. *Petals* 5. *Seeds* roundish, naked, generally wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Leaves interruptedly pinnated, serrated, silky beneath. Stem creeping. Flower-stalks single-flowered.

SYN. Potentilla anserina. *Linn. Sp. Pl.* 710. *Sm. Fl. Brit.* 548. *Huds.* 222. *With.* 473. *Hull.* 112. *Relh.* 196. *Sibth.* 101. *Abbot.* 113. *Curt. Lond. fasc.* 3. *t.* 31.

Pentaphylloides Argentina dicta. *Raii Syn.* 256.

AN elegant though common plant, generally met with in osier-holts and meadows, in a light black spongy soil, flowering principally in June and July.

Root perennial, throwing out many long trailing smooth reddish stems, which take root at their joints, where the leaves and flowers also come forth. Leaves of a lyrate form, interruptedly pinnate, deeply and sharply serrate, most silky or silvery beneath; the radical ones largest and most numerous. Stipulæ acute, entire. Flower-stalks simple, solitary, mostly upright, but sometimes depressed, each bearing a large handsome bright-yellow flower. Calyx hairy, its smaller intermediate segments generally notched. Petals roundish, or but slightly emarginate. Germens very hairy. Seeds seldom perfected.—Sometimes the leaves are smooth, and destitute of that silky down which gives them their chief beauty.

This cannot be confounded with any other British *Potentilla*.

POTENTILLA reptans.

Common creeping Cinquefoil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 10 segments. *Petals* 5. *Seeds* roundish, naked, generally wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Leaves in fives, obovate, serrated. Stem creeping. Flower-stalks single-flowered.

SYN. Potentilla reptans. *Linn. Sp. Pl.* 714. *Sm. Fl. Brit.* 551. *Huds.* 224. *With.* 474. *Hull.* 113. *Relh.* 198. *Sibth.* 161. *Abbot.* 113. *Curt. Lond. fasc.* 1. *t.* 37. *Woodv. Med. Bot. t.* 59.

Pentaphyllum vulgatissimum. *Raii Syn.* 255.

THIS is of still more frequent occurrence than the last in meadows, pastures, by way-sides, and similar places, flowering in June, July and August.

Root fibrous, perennial. Stems long, filiform, trailing, and taking root from the joints, as in *P. anserina*. Leaves in pairs from each joint, on long erect stalks; composed of 5 (often more) obovate serrated leaflets, of a dark green, a little hairy. Stalks solitary, erect, rising above the leaves, and each bearing a large yellow flower. Calyx of 10 entire segments, of which the intermediate ones are of a deeper green than the rest. Petals obcordate, broad and short.

We presume the plant in Ray's *Synopsis*, inserted by Dillenius *p.* 255. *n.* 4, must be a variety of this, as Mr. Hudson supposes; but we cannot help totally dissenting from that gentleman in referring *Tormentilla reptans* to the same species, as the slightest inspection will prove it totally distinct, though occasionally bearing some five-cleft flowers.

Tormentilla officinalis.

TORMENTILLA officinalis.

Common Tormentil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 8 segments. *Petals* 4. *Seeds* roundish, naked, wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Stem ascending, branched. Leaves sessile.

SYN. Tormentilla officinalis. *Sm. Fl. Brit.* 552. *With.* 476. *Curt. Lond. fasc.* 5. *t.* 35.
T. erecta. *Linn. Sp. Pl.* 716. *Huds.* 225. *Hull.* 112. *Relh.* 198. *Woodv. Med. Bot. t.* 9.
Tormentilla. *Raii Syn.* 257.
Potentilla Tormentilla. *Sibth.* 162. *Abbot.* 114.

COMMON in barren pastures, especially on heaths among ling and other small shrubs, which are bespangled with its little bright blossoms in June and July.

The root is remarkably large and woody, endued with an eminent degree of astringency, whence it has been long ago admitted into the catalogue of officinal plants. Stems weak, slender and wiry, generally supporting themselves upon the surrounding plants, often procumbent, branched, round, leafy, clothed with short soft erect hairs. Leaves sessile or nearly so, ternate, deeply serrated, accompanied by a pair of deeply divided stipulæ. Flowers on long capillary solitary stalks, placed opposite to the leaves, or rather in the forks of the branches. Segments of the calyx ovate, alternately smaller, hairy. Petals inversely heart-shaped, yellow. Germens hairy. Seeds few, rugged.

Miss Johnes observed one plant at Hafod in which all the flowers were double. We never heard of another instance of the kind, either in this genus or *Potentilla*.

Some flowers are occasionally found with 5 petals and 10 segments of the calyx; yet this happens so rarely, and the two species of *Tormentilla* accord so well in habit, that we are not convinced of the propriety of considering them as *Potentillæ*.

Tormentilla reptans.

TORMENTILLA reptans.

Trailing Tormentil.

ICOSANDRIA Polygynia.

GEN. CHAR. *Cal.* in 8 segments. *Petals* 4. *Seeds* roundish, naked, wrinkled, affixed to a small dry receptacle.

SPEC. CHAR. Stem prostrate. Leaves on footstalks.

SYN. Tormentilla reptans. *Linn. Sp. Pl.* 716. *Sm. Fl. Brit.* 553. *With.* 476. *Hull.* 112. *Raii Syn.* 257.

Potentilla procumbens. *Sibth.* 162.

THIS species of Tormentil now and then occurs about hedges and the borders of fields in dry places, but is by no means common. We even doubt whether Mr. Hudson ever saw it; else he surely would never have made it a variety of the *Potentilla reptans*, though it sometimes bears a five-cleft blossom in the beginning of its flowering. The habit and appearance are as little like that species of *Potentilla* as can well be, if accurately examined.

The root is perennial, small and slender. Stems one or two; 18 or 20 inches long, entirely prostrate, but not taking root, so that the specific name *procumbens* would have been better than *reptans*. Whole herb hairy, and of a light green. Radical leaves in fives, on long stalks; those on the stem in threes, on shorter stalks; all obovate and deeply serrated; the floral leaves sessile, narrow and almost entire. Stipulæ more or less cut. The flowers, which appear in June and July, are twice as large as in the Common Tormentil, bright yellow, and grow on very long capillary stalks opposite to the leaves. The stem, though often quite simple, is sometimes divided as in our specimen.

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